The Cost of Living in a Small Factory Town

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A THESIS

PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL OF CORNELL UNIVERSITY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BY

CLARENCE VERNON NOBLE

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Published as Bulletin 431
Cornell University Agricultural Experiment Station, September 1924

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THE COST OF LIVING IN A SMALL FACTORY TOWN[1]

CLARENCE VERNON NOBLE

The purpose of the investigation herein reported is threefold: (1) to study living conditions and living costs of persons employed in a factory located in a small town; (2) to make a comparative study of living conditions and living costs of persons employed in a factory and (a) living on farms, (b) living in town and cultivating gardens or keeping livestock, (c) living in town with no gardens nor livestock; (3) to formulate some of the advantages and disadvantages of the small town as a factory site.

METHOD OF STUDY

The survey method was used in making this study. A record sheet similar to the one shown on the last pages of this bulletin was used. The plan was to select a successful manufacturing concern located in a small town, and to visit as many of the employees of that plant as time would permit. The Corona Typewriter Company at Groton, New York, was finally selected as a desirable place to make the survey. The president of the company checked from the factory lists the names of those employees who might be visited, the only condition being that the employees selected should represent heads of households. A total of 113 names was furnished the writer, and of this number of records taken 86 were considered satisfactory for the work in hand. During the course of the survey there were six additional records taken of employees of other manufacturing concerns in Groton. These also were used in the study, making a total of 92 records. Each record covers the receipts and expenditures of one family for the year beginning September 1, 1918, and ending August 31, 1919. The data were obtained by questioning members of each household and getting their best estimates on each detail of the record blank.

Complete records of receipts and expenses were found in only 2 of the 92 homes visited. However, in most homes there were records which were of more or less value in helping the person giving the data to make his estimates. While no claim is made that the estimates obtained were absolutely accurate, it is the writer's belief that the average of these estimates is reasonably accurate and is fairly representative of the married employees of the Corona Typewriter Company.

LOCATION AND DESCRIPTION OF AREA STUDIED

Groton is located in the northeastern part of Tompkins County, New York. The Fair Haven, Auburn, Owego & Sayre branch of the Lehigh Valley Railroad passes through the village, and an improved state road

[1] Also presented to the Faculty of the Graduate School of Cornell University, September, 1920, as a major thesis in partial fulfillment of the requirements for the degree of doctor of philosophy.

AUTHOR'S ACKNOWLEDGMENTS. This investigation was conducted under the direction of Professor G. F. Warren. The president of the Corona Typewriter Company furnished valuable aid in getting the work started. The families of Groton, New York, furnished the data on which the study is based. Mr. D. G. Card assisted in collecting the data. To these and to many others who helped with the work, the writer is indebted.

connects it with Auburn to the north and with Ithaca to the south. The population of Groton on January 1, 1920, was 2235.[2]

The Corona Typewriter Company is by far the largest industrial plant in the village. On September 1, 1919, this company had in its employ approximately 800 individuals, of whom about 500 were men and about 300 were women. Not all of these employees, however, claimed Groton as their home. Many of the unmarried employees whose homes were in near-by towns, boarded in Groton during the week and spent their week-ends at home. Others either drove to and from their homes with their own cars, or made the trip in the motor busses which were operated by the company. At the time this survey was taken there were four of these company-operated motor busses, three seating twenty-five persons each and a smaller one seating fifteen persons. Two of the large busses made trips every workday to Moravia, which is about ten miles north of Groton. Two of the employees of the company, whose homes were in Moravia, drove these busses. By this arrangement only one trip a day was necessary, as the busses remained in Moravia overnight. The third large motor bus was operated between Groton and Freeville, about five miles to the south, under the same arrangement. The small bus was used for employees living in Locke, about six miles north of Groton. This bus was driven by a man who lived in Groton, so that two trips daily were necessary. The fare on these busses, if paid in advance, was $2.40 a week to Moravia, and $2.10 a week to Locke or Freeville.

Other industrial plants located at Groton are the American Road Machinery Company, the Groton Bridge and Manufacturing Company, the Groton Electrical Devices, and the Jersey Milk and Cream Company.

The elevation of the village varies from about 1000 feet to 1200 feet. All of the industrial plants and business establishments are situated along the railroad in the Owasco Lake inlet valley extending north and south through the town. The residential sections rise to the higher elevations in the east and west. The principal soil types are the Dunkirk gravelly loam in the valley and the Dunkirk gravelly sandy loam on the hillsides. Both of these soil types are excellent for gardening. A growing season of about 150 days, and a rainfall during the growing season of from 16 to 18 inches, give the gardeners of this region favorable climatic conditions for growing a wide variety of vegetables and fruits.

MEMBERS OF THE HOUSEHOLDS

The 92 homes visited had a membership of 395 persons for all or part of the year from September 1, 1918, to August 31, 1919 (table 1). The word *family* is used here to include those members of the household who contribute all of their earnings to the general family fund or are entirely dependent on this fund for support. *Self-supporting* includes those members of the household who contribute a definite sum for privileges received. *Household* is used as an all-inclusive word to cover all persons in a home.

All of the families visited were white, and most of the husbands and wives had been born in Groton, on near-by farms, or in neighboring towns or villages.

[2] Fourteenth Census of the United States, vol. 1, Population, p. 261. 1920.

TABLE 1. MEMBERS OF 92 HOUSEHOLDS IN GROTON, NEW YORK

	Number
Family:	
Husbands	91
Wives*	92
Sons	65
Daughters	48
Husbands' grandmothers	2
Husbands' mothers	2
Husband's father	1
Husband's niece	1
Wife's grandmother	1
Wives' mothers	5
Wives' fathers	2
Wife's cousin	1
Grandchildren	6
Daughters-in-law	2
Hired girls	2
Self-supporting:	
Roomers and boarders:	
Sons	3
Daughters	5
Others	34
Roomers only	12
Boarders only	20
Total	395

* One was widowed.

HUSBANDS

Nationality

Of the 91 husbands, 86, or 95 per cent, were natives of the United States. Other nationalities were represented by two Englishmen, one German, one Bohemian, and one South American.

Age

The average age of all husbands was 39 years, but since a few of them were somewhat advanced in years, thus making the average non-representative of the group as a whole, the median age is more significant. This was 35 years.

Schooling

Only one of the husbands had completed a college course, while four others had received some college training. Eight of the men were high-school graduates, one had attended high school for four years, ten for three years, seventeen for two years, and eight for one year. The remaining forty-two husbands had received only district- or grammar-school training, and twenty-six of these had not even completed the work prescribed in these elementary schools. To summarize, 46 per cent of the husbands had not attended high school, 48 per cent had received more or less high-school training but had not entered college, and about 5 per

cent had attended college but only one individual had completed the college work.

WIVES

Nationality

Of the 92 wives, 88 had been born in the United States. Canada, Germany, Sweden, and Bohemia each had one representative among the wives.

Age

As would be expected, the average age of all wives was below that of the husbands, it being 35 years. The median age was 33 years for wives, or two years younger than the corresponding figure for husbands.

Schooling

The wives had received better schooling than had their husbands. Three of them were college graduates, and eight others had attended college for varying periods. There were twelve high-school graduates among the wives, one had attended high school for four years, ten for three years, nine for two years, and fifteen for only one year. This left thirty-four wives who had received only elementary-school training, and twenty-two of these did not complete the work in these schools. Thus, 37 per cent of the wives received less than high-school training, 51 per cent were enrolled for varying periods in high schools but did not attend college, and 12 per cent entered college with three persons completing their college courses.

CHILDREN

There were no foreign-born children in the 92 homes studied. The average age of all sons at home was 9.9 years, and for all daughters at home 9.4 years. The median ages were 6 years for the sons and 7 years for the daughters. The ages of the children at home are given in table 2:

TABLE 2. AGES OF CHILDREN AT HOME

(67 families, Groton, New York)

Age (years)	Males	Females	Total	Age (years)	Males	Females	Total
Under 1	2	3	5	9–10	3	5	8
1–2	4	2	6	10–11	3	3	6
2–3	9	3	12	11–12	1	3	4
3–4	6	6	12	12–13	5	2	7
4–5	3	1	4	13–14	1	..	1
5–6	3	4	7	14–15	1	..	1
6–7	6	4	10	15–16	1	1	2
7–8	3	2	5	16–17	..	5	5
8–9	2	..	2	17 or over	12	4	16

Many of the families visited showed deep interest in the Groton school system, and all persons with children seemed very anxious that their children should at least complete the work in the local high school. Of the children of high-school age, 50 per cent of the sons and 43 per cent of the daughters had left school before completing the high-school work.

All of the children lived within convenient walking distance of the schools. The longest distance that any child was required to walk was approximately one mile.

SIZE OF IMMEDIATE FAMILY

The average size of the immediate family (including husband, wife, and children) in the 92 homes studied was 3.3 persons at home, or 3.6 persons when the fifteen sons and sixteen daughters who were not at home at any time during the year were considered. The number of children per family, including the children not at home, is shown in table 3:

TABLE 3. SIZE OF IMMEDIATE FAMILIES

(92 households, Groton, New York)

Families having	Wives under 45 years old	Wives 45 years old or older	Total	
			Number	Per cent
No children	22	3	25	27.2
1 child	26	8	34	37.0
2 children	11	2	13	14.1
3 children	4	1	5	5.4
4 children	3	3	6	6.5
5 children	2	3	5	5.4
6 children	2	1	3	3.3
10 children	1	0	1	1.1

SELF-SUPPORTING MEMBERS OF HOUSEHOLD

In the families studied, there were three sons and five daughters who were working in Groton but were paying for their rooms and board at their homes. In addition to these members of the immediate family, 34 roomers and boarders, 12 roomers only, and 20 boarders only (table 1, page 7), were members of the 92 households for all or a part of the year covered by the survey.

ADULT-MALE-EQUIVALENT UNIT

The most important step in making an analysis of the 92 budgets included in this study, was considered to be the reducing of all households to some common basis. The units of comparison used by different investigators have been the per-family, per-capita, adult-equivalent, and adult-male-equivalent units. The per-family unit is misleading, not only because of the variation in the size of families, but also because of the age and sex composition of families having the same number of individuals. The per-capita unit eliminates the first objection made to the per-family unit, but still fails to recognize the varying requirements for individuals of different sex and age. The adult-equivalent method, used by some investigators, is to count two children as equal in their demands to one adult, and thus reduce all families to the adult equivalent, regardless of sex. Some writers have used this method without any regard to the ages of the children. One investigator (Funk, 1918:5, footnote) has considered a child of 12 years of age or less as equivalent to one-half an adult,

and all persons older as adults. This, of course, is only approximate, because much depends on the age and sex of the children and the sex of the other members of the household. The adult-male-equivalent unit appears to be the best unit yet devised for making a study of this kind. It is based on the food requirements of individuals of different sexes and ages, reducing each member of the household to its equivalent in consuming power to an adult male represented as 100.

In arriving at the adult-male-equivalent figure, there seems to be a difference of opinion. The units adopted by the United States Labor Commissioner (1891) in his investigations of 1890–91 were as follows:

	Units
Adult male	100
Adult female	90
Child of 11 to 14 years, inclusive	90
Child of 7 to 10 years, inclusive	75
Child of 4 to 6 years, inclusive	40
Child of 3 years or under	15

These units are purely arbitrary, not being based on any scientific data as to the relative consuming power of women and children as compared with that of an adult male. These units are still in use by the Bureau of Labor Statistics of the United States Department of Labor (1919 a:148).

Another system for getting the adult male equivalent was proposed by Engel (1895:5). This method starts with one unit at infancy, represented by unity, and adds one-tenth of a unit for each advancing year up to the age of 20 for females and 25 for males. This is purely arbitrary. Engel's object was to furnish a means by which all other expenditures, as well as that for food, of families of different composition might be reduced to some common unit for comparison.

The method of the Office of Experiment Stations, United States Department of Agriculture (Langworthy, 1908:365), appears to be the only truly scientific method yet devised for reducing families to the adult male equivalent in food consumption. This method is based on more than five hundred dietary studies made in the United States and other countries. The values are given in table 4:

TABLE 4. RELATIVE VALUES FOR FOOD REQUIREMENTS OF PERSONS OF DIFFERENT AGES AND OCCUPATIONS AS COMPARED WITH A MAN IN FULL VIGOR AT MODERATE WORK

Man, period of full vigor:	
At moderate work	100
At hard work	120
In sedentary occupation	80
Woman, period of full vigor:	
At moderate work	80
At hard work	100
In sedentary occupation	70
Man or woman:	
In old age	90
In extreme old age	70–80
Boy:	
15 to 16 years old	90
13 to 14 years old	80

TABLE 4 (*concluded*)

Boy (*continued*):	
12 years old	70
10 to 11 years old	60
Girl:	
15 to 16 years old	80
13 to 14 years old	70
10 to 12 years old	60
Child:	
6 to 9 years old	50
2 to 5 years old	40
Under 2 years old	30

Although approximately the same results would be reached by the use of any one of the three methods noted above, the units devised by the United States Department of Agriculture seem to be nearest to the truth. Accordingly these units are employed in the present study. No satisfactory set of units has yet been devised for comparing families of different composition with reference to expenditures other than food. Therefore the food units are used for all comparative purposes in this work, due consideration being given, of course, to the members of the household who should be included in figuring each class of receipt or expense.

LIVING CONDITIONS AND LIVING COSTS OF PERSONS EMPLOYED IN FACTORIES LOCATED IN A SMALL TOWN

FAMILY INCOME

The average annual income of the 92 families studied, showing the amount and the percentage of the total income derived from the various sources, is given by income groups in table 5.

An attempt was made to ascertain the total receipts for the year for each member of the family who contributed all earnings to the general family fund. The receipts from husbands and wives are divided into "Cash" and "Not cash" in table 5, the "Not cash" representing some commodity furnished in return for work performed. The footnotes to the table denote the commodity received. The wives' receipts are divided into receipts "From roomers and boarders" and receipts "From other sources." Gifts to any member of the family were not considered as receipts, nor was any attempt made to ascertain the expense for gifts made by members of the family.

The receipts from farms, gardens, and livestock are gross, the "cash" receipts representing the quantity of products sold and the "not cash" receipts representing primarily the quantity of home-produced food used in the homes.

It is shown in table 5 that the average family income for the year was $2013.43. Of this amount the husbands contributed 75.5 per cent, the wives 13.8 per cent, the children 2.2 per cent, and other members of the family 0.5 per cent. The remaining 8 per cent was made up of receipts from farms, gardens, and livestock.

When the data are studied by income groups, it may be noted that, although the total family income increased approximately 97 per cent

TABLE 5. AVERAGE ANNUAL INCOME, SHOWING AMOUNT AND PERCENTAGE DERIVED FROM EACH SOURCE

(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Adult male equivalent	2.12	2.56	2.70	2.46
Receipts from:				
Husbands:				
Cash	$1,064.86	$1,490.06	$2,002.28	$1,517.49
Not cash	9.14*	.....	5.38†	4.58
Total	$1,074.00	$1,490.06	$2,007.66	$1,522.07
Wives:				
From roomers and boarders:				
Cash	$ 16.38	$ 96.68	$293.66	$133.46
Not cash	.....	7.06§	8.28§	5.23
From other sources:				
Cash	102.41	154.53	132.14	131.04
Not cash	9.93‡	.....	14.34‖	7.64
Total	$128.72	$258.27	$448.42	$277.37
Sons — cash	$24.34	$23.29	$79.86	$41.46
Daughters — cash	.....	$3.79	$4.10	$2.70
Other members of family — cash	$22.76	.....	$6.03	$9.08
Farms, gardens, or livestock:				
Cash	$69.90	$31.71	$ 69.07	$ 55.52
Not cash	78.72	96.88	141.52	105.23
Total	$148.62	$128.59	$210.59	$160.75
Total family income, all sources:				
Cash	$1,300.65	$1,800.06	$2,587.14	$1,890.75
Not cash	97.79	103.94	169.52	122.68
Total:				
Per family	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Per adult male equivalent	$658.79	$744.86	$1,021.11	$816.87
Per cent of total income derived from:				
Husbands	76.9	78.2	72.9	75.5
Wives	9.2	13.6	16.3	13.8
Sons	1.7	1.2	2.9	2.1
Daughters	.....	0.2	0.1	0.1
Other members of family	1.6	.....	0.2	0.5
Farms, gardens, or livestock	10.6	6.8	7.6	8.0

* Wood, butter, cream, and cheese in return for work.
† Board and room in return for work.
‡ Board in return for housework.
§ Rent in return for board and room.
‖ Board and room in return for housework.

from the lowest to the highest income group, the increase in that part of the income contributed by the husband was only about 87 per cent for the same groups. The proportion of the total family income contributed by the husband decreased from 76.9 per cent in the lowest income group to 72.9 per cent in the highest income group. On the other hand, the amount contributed by the wife increased from 9.2 per cent in the lowest income group to 16.3 per cent in the highest. The percentage of the total family income derived from the children and other members of the family was small in all groups.

The adult male equivalent averaged 2.46 for the 92 families. The size of the family increased directly with the family income. The average annual income per adult male equivalent was $816.87 for all families. The average income per adult male equivalent increased about 55 per cent from the smallest to the largest income group. As previously stated, the average family income increased approximately 97 per cent for the same groups.

Thus far the amount of the family income derived from each source has been presented as the average for the total number of budgets in each group, regardless of the number of persons contributing from each source. In the case of husbands, of course, there would be very little difference, since there was but one family without income from this source. The number of persons contributing from each source, and the average amount contributed by each, are given in table 6:

TABLE 6. SOURCES OF INCOME, SHOWING THE NUMBER CONTRIBUTING FROM EACH SOURCE AND THE AVERAGE AMOUNT CONTRIBUTED BY EACH

(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Average family income	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Source of income:				
Husbands:				
Number contributing	28	34	29	91
Average amount contributed	$1,112.36	$1,490.06	$2,007.66	$1,538.79
Wives:				
Number contributing	14	23	21	58
Average amount contributed	$266.64	$381.78	$619.24	$439.97
Sons:				
Number contributing	1	2	3	6
Average amount contributed	$706.00	$396.00	$772.00	$635.67
Daughters:				
Number contributing	.....	2	2	4
Average amount contributed	.....	$64.50	$59.50	$62.00
Other members of family:				
Number contributing	1	.....	1	2
Average amount contributed	$660.00	.....	$175.00	$417.50
Receipts from farms, gardens, or livestock:				
Number contributing	24	25	26	75
Average amount contributed	$179.58	$174.88	$234.88	$197.19

Not only did the proportionate number of wives contributing to the family fund increase directly with the family income, but the average amount contributed also increased in the same manner. Fifty-eight, or about 63 per cent of the wives, contributed an average of $439.97 to the family income. The largest proportion of this amount was pay from roomers and boarders, or for doing extra work at home such as dressmaking and laundry. However, a considerable number of the wives were working in the factory and doing their housework in the mornings and the evenings and on Saturday afternoons.

Six sons, four daughters, and two other members of the family, each contributed an average of $635.67, $62.00, and $417.50, respectively, to the family income.

Seventy-five of the 92 families visited had more or less receipts from farms, gardens, or livestock. The average receipts from this source were $197.19 per family.

FAMILY EXPENSES

The family expenses for the 92 homes under discussion are considered in averages per family and per adult male equivalent. The adult male equivalent used differs with the various kinds of expenses. Upkeep or rent, light, heat, water, and telephone, were considered expenses for the family for the entire year, and for roomers for the number of months they were in the household. The adult male equivalent used for board, for purchased food, and for farm and garden expenses, includes all persons in the household, with the exception of roomers, for the period of the year they were boarded. For all other expenses, the adult male equivalent used includes the family for the period of the year at home.

The average annual costs of upkeep or rent, light, heat, water, and telephone, are given in table 7:

TABLE 7. AVERAGE ANNUAL COSTS OF UPKEEP OR RENT, LIGHT, HEAT, WATER, AND TELEPHONE

(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Average family income	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Adult male equivalent	2.25	2.88	3.29	2.81
Upkeep or rent:				
Per family	$181.97	$177.88	$246.03	$200.65
Per adult male equivalent	80.81	61.65	74.73	71.35
Light:				
Per family	12.21	16.76	19.86	16.30
Per adult male equivalent	5.42	5.82	6.03	5.80
Heat:				
Per family	74.28	86.95	90.89	84.19
Per adult male equivalent	32.99	30.18	27.61	29.94
Water:				
Per family	3.69	4.97	7.66	5.41
Per adult male equivalent	1.64	1.73	2.33	1.92
Telephone:				
Per family	4.14	3.12	3.41	3.53
Per adult male equivalent	1.84	1.08	1.04	1.26

Upkeep or rent

Five of the families included in the survey were boarders, leaving a total of 44 owned and 43 rented homes for a comparative study. The data are given in table 8.

The general tendency was for both owners and renters to live in better homes as the family income increased. The average value of the owners' houses in each income group was somewhat higher than the average value that renters placed on their dwellings. The average value of the 44 owned dwellings exceeded by slightly more than $500 the average value of the 43 rented dwellings. In addition to the dwelling, the owned homes possessed other buildings, such as garages, henhouses, and barns, averaging approximately $260 per home. In the case of the rented homes, the estimated value of other buildings averaged only about $23.

The second method of comparing owned and rented homes was by the number of rooms, excluding bathrooms, in each house. The average for the owned homes was 7.9 rooms, and for the rented homes 6 rooms. Of the owned dwellings, 25 per cent had neither bath nor inside toilet, 5 per cent had only the inside toilet, and 70 per cent had bath and inside toilet. Of the rented homes, 21 per cent were without bath and inside toilet, 14 per cent had only the inside toilet, and 65 per cent had bath and inside toilet. There were no legal building requirements in Groton for either owned or rented homes.

The third method used for making the comparative study of homes was to ask each home owner as to the probable yearly rental value of his property. The averages for these estimates are given in table 8, with the average annual rent paid by the renters. The results are consistent with the other two methods used; that is, the average estimate of the probable rental value of owned homes was somewhat higher than the average rent actually paid by the renters.

The final method used in studying the homes was to classify each as to general appearance. The purpose of this classification was to take into consideration all the important points about each home and arrange the homes in three arbitrary classes, " good," " medium," and " poor," placing about half of the homes in the " medium " group and about a quarter of them in each of the other two groups. These comparisons were made, of course, by taking the homes of Groton as a standard. The results of this classification are again in favor of the owned homes, since there were 32 per cent of these, and only 14 per cent of the rented homes, classified as good. Only 9 per cent of the owned homes were classified as poor, whereas 30 per cent of the rented homes fell in that class.

The residents of Groton take great pride in their homes, and home ownership is increasing very rapidly. Every encouragement is offered the citizens to own their homes. There is a well-organized Savings and Loan Association, whose members are given every opportunity to become householders. The Groton Chamber of Commerce, through its secretary, keeps the residents well informed as to homes and building lots for sale, and has on hand a large number of building plans and blue prints which the citizens are at liberty to study at any time. In addition to these incentives, the Corona Typewriter Company has built a number of comfortable houses with the idea of selling them to its employees at approxi-

TABLE 8. COMPARISON OF OWNED AND RENTED HOMES

(87 families, Groton, New York)

Family income group	Number in group	Average family income	Average value of house	Average value of other buildings	Average number of rooms	Per cent of houses having			Probable yearly rental compared with rent paid	General appearance of homes		
						Neither bath nor toilet	Bath and toilet	Toilet only		Good (per cent)	Medium (per cent)	Poor (per cent)
$1600 or less:												
Homes owned	13	$1,449.62	$2,138.46	$383.08	7.7	31	61	8	$221.77	23	62	15
Homes rented	13	1,346.15	1,826.92	.....	5.7	15	70	15	172.88	15	62	23
$1601 to $2000:												
Homes owned	15	2,023.33	2,487.33	145.33	7.6	33	60	7	237.60	40	53	7
Homes rented	18	1,817.61	1,750.00	26.67	5.6	28	61	11	174.36	11	50	39
Over $2000:												
Homes owned	16	2,874.19	2,895.31	266.44	8.3	12	88	0	294.38	31	63	6
Homes rented	12	2,648.67	2,666.67	43.75	6.8	17	66	17	212.75	17	58	25
All groups:												
Homes owned	44	2,163.23	2,532.61	259.61	7.9	25	70	5	253.57	32	59	9
Homes rented	43	1,907.00	2,029.07	23.37	6.0	21	65	14	185.16	14	56	30

mately construction cost. The terms of sale are extremely liberal, and a number of the employees are already taking advantage of this opportunity. One of the insistent needs of the town is an increased number of homes for its workers, and it appears as though the above-mentioned agencies will help to meet this need in the near future. In spite of the abnormal costs of construction work in 1919, the writer counted no less than thirty houses under construction in September of that year. Most of these houses were to be occupied by their owners.

A comparison of the upkeep costs of owned homes with the rent paid for rented homes is shown in table 9. The upkeep costs, consisting of taxes, fire insurance, repairs and improvements, and interest on mortgages and on money invested, are given in detail in the table by income groups, with the comparative rental figures in the total columns. These costs are classified into those paid for by actual outlays of cash, and those not paid for in cash. For example, the "interest on investment" column is subdivided to distinguish between the cash interest payments on mortgages and the equally legitimate charge for interest on the money tied up in the home. Of the 44 owned homes, 28 were mortgaged. The average amount of mortgage on these 28 homes was $1741.25. There was no depreciation on any of the owned homes, as the repairs more than maintained the value of the property.

In most instances the cash outlay for the upkeep of owned homes was less than the cash cost of rent for the rented homes, the comparative figures being $146.70 for each owned home and $165.74 for each rented home. However, when all costs were considered, the average upkeep costs and interest on owned homes exceeded the average rental charges for the rented homes. The percentage of the value of owned homes represented by upkeep and interest costs averaged practically the same as the percentage of return on investment in rented homes.

Not all of these families had been in the owner or the renter class for the entire year. In order, therefore, to make a fairer comparison, the average number of months that the homes were owned or rented was placed in the next to the last column of the table. The last column gives the comparative monthly cost of the owned and the rented homes. In every case, the owned homes cost the more when interest was included, but they were also better homes. The average monthly cost of upkeep and interest on all owned homes was approximately $4 higher than the average monthly rent paid for the rented homes.

Light

Two-thirds of the families used electric lights, and one-third used kerosene. The average annual cost of lights of all kinds for all families was $16.30 per family, or $5.80 per adult male equivalent (table 7). There was a considerable increase in the cost of lighting per family as the family income became larger, though the increase per adult male equivalent was small. The families that used electric lights, omitting the 6.7 families where the light cost was included in the rent, averaged 251.6 kilowatt-hours per family, or 89.9 kilowatt-hours per adult male equivalent. The families with kerosene lights averaged 76.2 gallons of kerosene per family, or 24.7 gallons per adult male equivalent. The cost per family for electric

TABLE 9. COMPARISON OF UPKEEP OF 44 OWNED HOMES WITH RENT OF 43 RENTED HOMES IN GROTON, NEW YORK

Family income group	Number in group	Average family income	Average annual cost of					Total cost of upkeep		Less appreciation (not cash)	Net cost of upkeep for owned homes and rent for rented homes				Average number of months used during the year	Cost per month used
			Taxes (cash)	Fire insurance (cash)	Repairs and improvements (cash)	Interest on investment at 6 per cent		Cash	Not cash		Cash	Not cash	Total	Per cent of value of home		
						Cash	Not cash									
$1600 or less:																
Homes owned	13	$1,449.62	$37.46	$4.92	$46.54	$18.62	$124.00	$107.54	$124.00	$15.38	$107.54	$108.62	$216.16	9.0	11.8	$18.25
Homes rented	13	1,346.15	.....	.....	.....	.....	.....	.....	.....	.....	155.15	.....	155.15	9.5	10.8	14.41
$1601 to $2000:																
Homes owned	15	2,023.33	33.20	4.13	44.53	37.00	77.53	118.86	77.53	26.67	118.86	50.86	169.72	7.5	10.5	16.22
Homes rented	18	1,817.61	.....	.....	.....	.....	.....	.....	.....	.....	155.39	13.33	168.72	9.8	11.6	14.53
Over $2000:																
Homes owned	16	2,874.19	46.56	6.06	99.88	52.25	90.81	204.75	90.81	67.19	204.75	23.62	228.37	9.6	9.4	24.36
Homes rented	12	2,648.67	.....	.....	.....	.....	.....	.....	.....	.....	192.75	20.00	212.75	7.8	12.0	17.73
All groups:																
Homes owned	44	2,163.23	39.32	5.02	65.25	37.11	96.09	146.70	96.09	38.07	146.70	58.02	204.72	8.7	10.5	19.54
Homes rented	43	1,907.00	.....	.....	.....	.....	.....	.....	.....	.....	165.74	11.16	176.90	9.0	11.5	15.43

lights was $19.73 and for kerosene $13.76. The cost per adult male equivalent was $7.05 for electric lights and $4.47 for kerosene.

Heat

Furnaces were used in 56 of the 92 homes, but in 6 of these homes the cost of heating was included in the rent. The other 36 homes were heated by stoves. Kerosene stoves were used in 55 homes and gasoline stoves in 2 homes. The kerosene and gasoline stoves were used primarily for cooking, to supplement the coal or wood stoves.

The average quantities of fuel used per family for heating and cooking were 7.5 tons of coal, 1.6 cords of wood, and 33.9 gallons of kerosene and gasoline. The average cost of all fuel was $84.19 per family, or $29.94 per adult male equivalent (table 7). The cost per family increased with the family income, but the cost per adult male equivalent decreased slightly with increasing family income. The amount of coal used increased, and the amount of kerosene used decreased, with the rise in the family income.

A comparison of furnace heat and stove heat indicates that families having furnace heat use more coal and less wood than do families having stove heat. The average cost per family of all fuel for heating and cooking was $100.68 for families having furnaces, and $75.33 for families having stove heat. The cost per adult male equivalent was also higher for the families that had furnace heat.

Water

Seventy-five of the homes were furnished with water from the town water-mains. For 12 of these homes, however, the water cost was included in the rental charge. Of these 75 families, 5 had the following sources of water to supplement that of the town system: outside pumps, 2 families; an outside pump and a cistern in the cellar, 1 family; a kitchen pump connected with a cistern in the cellar, 1 family; an inside pump, 1 family. The 17 families who did not receive water from the town water-supply system obtained their water from the following sources: 7 had water piped into their houses from a spring; 3 had pumps outside and a spring; 1 had a pump outside operated by a windmill; 1 had a pump outside, and a cistern in the cellar from which water was carried; 1 had a pump outside, a spring, and a kitchen pump connected with a cistern in the cellar; 1 had a pump outside operated by a gasoline engine, and a kitchen pump connected with a cistern in the cellar; 1 had a pump outside, and a kitchen pump connected with a cistern in the cellar; 1 had a pump inside; 1 had an artesian well outside.

The average annual cost of water for all families was $5.41 per family, or $1.92 per adult male equivalent (table 7). The water cost increased with the total family income, both per family and per adult male equivalent. For the families that used town water only, the average cost was $7.35 per family, or $2.55 per adult male equivalent. For the families having no town water, the average cost was $2.06 per family, or 67 cents per adult male equivalent.

Telephone

Only 20 of the 92 families had telephones in their homes. The average cost per family having a telephone was $16.25. Telephones were considered

an unnecessary expense by many of the families visited, because of the small size of the town and the consequent nearness of all residents to the business section. When the division is made between the families living on farms and those living in town, about 46 per cent of the farm families, and only approximately 18 per cent of the town families, had telephones.

The average annual cost for telephone use for all families was $3.53 per family, or $1.26 per adult male equivalent (table 7).

Board

Five of the families visited boarded for the entire year. Four of these families consisted of the husband and the wife only, and in the fifth family there was one small son. In addition to these five, ten other families had greater or less expenses for board during the year. In some cases the entire family had boarded for a short time, while in other cases only certain members of the family had had this expense. In a few instances the cost was merely for the husband's lunches at the factory in case he lived too far away to go home at noon.

The annual cost for board is here calculated in the same manner as all other costs, by using the total number of households as a unit. In table 10 the costs are presented by income groups, divided into cash and not cash, and the total costs are given per household and per adult male equivalent.

TABLE 10. AVERAGE ANNUAL COST OF BOARD

(92 households, Groton, New York)

Family income group	Number in group	Average family income	Adult male equivalent	Average cost for all households			
				Cash per household	Not cash per household	Total	
						Per household	Per adult male equivalent
$1600 or less	29	$1,398.44	2.17	$62.17	$ 9.93	$72.10	$33.26
$1601 to $2000	34	1,904.00	2.83	41.53	.....	41.53	14.65
Over $2000	29	2,756.66	3.52	38.03	12.55	50.58	14.38
All groups	92	2,013.43	2.84	46.93	7.09	54.02	19.02

In a number of instances a member of the family performed some kind of work and received in return board instead of cash. The value of such meals is included here, and the value of the work was included under "not cash" in the total family income (table 5, page 12). The total annual expense for board for all households amounted to $54.02 per household, or $19.02 per adult male equivalent (table 10).

Purchased food

The average cost of all purchased food for the year is given by income groups in table 11. The cost of all purchased food averaged $627.16 per household, or $220.83 per adult male equivalent. A detailed discussion of all food used is given on pages 48 to 56.

TABLE 11. AVERAGE ANNUAL COST OF ALL PURCHASED FOOD
(92 households, Groton, New York)

Family income group	Number in group	Average family income	Adult male equivalent	Average cost	
				Per household	Per adult male equivalent
$1600 or less	29	$1,398.44	2.17	$452.38	$208.70
$1601 to $2000	34	1,904.00	2.83	609.53	215.02
Over $2000	29	2,756.66	3.52	822.62	233.79
All groups	92	2,013.43	2.84	627.16	220.83

Miscellaneous expenses

All expenses not otherwise classified are grouped in alphabetical order under the heading *Miscellaneous expenses*, and are presented, by income groups, per family and per adult male equivalent, in table 12. The averages are given for the total number of families in each income group, regardless of the number of families having each kind of expense.

TABLE 12. AVERAGE ANNUAL MISCELLANEOUS EXPENSES
(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Average family income	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Adult male equivalent	2.12	2.56	2.70	2.46
Automobiles:				
Per family	$ 27.72	$ 20.03	$ 79.38	$ 41.16
Per adult male equivalent	13.06	7.84	29.40	16.70
Books, papers, and magazines:				
Per family	12.38	12.24	16.03	13.48
Per adult male equivalent	5.83	4.79	5.94	5.47
Car fare:				
Per family	0.93	1.30	.....	0.77
Per adult male equivalent	0.44	0.51	.....	0.31
Charity:				
Per family	6.69	7.91	8.45	7.70
Per adult male equivalent	3.15	3.10	3.13	3.12
Church:				
Per family	15.90	21.26	25.21	20.82
Per adult male equivalent	7.49	8.32	9.34	8.45
Clothing:				
Per family	141.10	168.56	219.93	176.10
Per adult male equivalent	66.47	65.94	81.47	71.45
Doctors, dentists, and medicine:				
Per family	56.97	83.26	70.00	70.79
Per adult male equivalent	26.84	32.57	25.93	28.72
Domestic help:				
Days — per family	(6.3)	(4.2)	(4.5)	(5.0)
per adult male equivalent	(3.0)	(1.6)	(1.7)	(2.0)
Cost — per family	$7.83	$5.03	$9.83	$7.42
per adult male equivalent	3.69	1.97	3.64	3.01

TABLE 12 (*concluded*)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Average family income	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Adult male equivalent	2.12	2.56	2.70	2.46
Educational:				
Per family	$ 9.38	$ 5.44	$34.34	$15.79
Per adult male equivalent	4.42	2.13	12.72	6.41
Entertainment:				
Per family	20.21	36.97	24.38	27.72
Per adult male equivalent	9.52	14.46	9.03	11.25
Furniture:				
Per family	32.59	54.59	53.03	47.16
Per adult male equivalent	15.35	21.36	19.64	19.13
Furniture insurance:				
Per family	1.48	1.24	2.03	1.57
Per adult male equivalent	0.70	0.48	0.75	0.64
House supplies:				
Per family	10.97	21.97	22.17	18.57
Per adult male equivalent	5.17	8.60	8.21	7.53
Laundry:				
Per family	13.24	24.68	27.90	22.09
Per adult male equivalent	6.24	9.65	10.33	8.96
Life insurance:				
Per family	26.45	39.15	50.83	38.83
Per adult male equivalent	12.46	15.31	18.83	15.75
Organization dues:				
Per family	3.86	5.56	6.55	5.34
Per adult male equivalent	1.82	2.17	2.43	2.17
Stamps and stationery:				
Per family	5.14	4.21	4.38	4.55
Per adult male equivalent	2.42	1.65	1.62	1.85
Traveling:				
Per family	34.79	33.32	49.55	38.90
Per adult male equivalent	16.39	13.04	18.35	15.78
War relief:				
Per family	6.83	7.76	10.83	8.43
Per adult male equivalent	3.22	3.04	4.01	3.42
Other expenses:				
Per family	0.45	2.94	0.86	1.50
Per adult male equivalent	0.21	1.15	0.32	0.61

Automobiles

Of the families visited, 22 owned automobiles. Eight different makes of cars were represented, in the following numbers: 9 Fords, 6 Overlands, 2 Chevrolets, 1 Buick, 1 Saxon, 1 Hupmobile, 1 Cadillac, and 1 Maxwell. The average cost per family having an automobile was $172.14. When all families were considered, the average cost for automobile use was $29.15 cash and $12.01 depreciation, making a total cost of $41.16 per family. The cost per adult male equivalent was $16.70.

Books, papers, and magazines

All expenses for general reading material for the family are included under one classification. Schoolbooks for the children, however, and other

books purchased primarily for educational purposes, are included under the heading "Educational."

Car fare

The principal costs falling under "Car fare," for the families studied, were those incurred by persons who used the Corona Company's motor busses for transportation to and from their work. When all families were considered, this cost was, of course, very small.

Charity

The average amount given to charity by these families was $7.70 per family, or $3.12 per adult male equivalent.

Church

Groton is generously supplied with churches, five denominations being represented. Undoubtedly the churches could do more effective work if some practicable method of uniting them could be developed. However, most of the families visited were giving financial aid to one of the churches. The average for all families was $20.82 per family, or $8.45 per adult male equivalent.

Clothing

Clothing is by far the most important expense included in the miscellaneous group. The average annual expenditure for clothing for all families was $176.10 per family, or $71.45 per adult male equivalent. The clothing cost per family increased with the total family income.

Doctors, dentists, and medicine

It cost the families $70.79, on an average, for care of health for the year. This amounted to $28.72 per adult male equivalent.

Domestic help

Only 18 of the 92 families hired any domestic help during the year. The average time given by hired domestic assistants was five days per family for all families. The cost of these five days of labor averaged $7.42 per family, or $3.01 per adult male equivalent.

Educational

The principal expenditures for education were those for books and other supplies for the school children, and the college expenses of one of the sons. In addition, several of the husbands were taking correspondence courses of various kinds to help them to become more efficient in their work. The average cost for educational purposes was $15.79 per family, or $6.41 per adult male equivalent.

Entertainment

The costs listed under "Entertainment" covered local entertainment primarily, such as the moving picture shows, and baseball and other games. Entertainment furnished in places other than Groton was included under "Traveling," since it seemed easier to get estimates of the entire cost of trips taken than to attempt to divide the cost among the various items of

expenditure. The average annual amount spent for local entertainment was $27.72 per family, or $11.25 per adult male equivalent.

Furniture

An average of $47.16 per family, or $19.13 per adult male equivalent, was spent for furniture during the year.

Furniture insurance

Of the 92 families, 59 carried insurance on their household goods. The average cost of this insurance for the year was $1.57 per family for all families, or 64 cents per adult male equivalent.

House supplies

"House supplies" covers all articles necessary to equip a home which would not be classed as furniture. The average expenditure for house supplies amounted to $18.57 per family, or $7.53 per adult male equivalent.

Laundry

Most of the ordinary family laundry in the homes visited was done by the housewives. The average cost for laundry work done out of the home was $22.09 per family, or $8.96 per adult male equivalent.

Life insurance

Some life insurance was carried by one or more members of 74 of the 92 families. The average premium amounted to $38.83 per family for all families, or $15.75 per adult male equivalent. This cost is here considered as an expense, though it might be viewed as a part of the savings.

Organization dues

Approximately 74 per cent of the families visited included at least one member who belonged to some lodge, club, or society. The men in most of these families were members of the Corona Club. The average annual dues paid to these fraternal organizations amounted to $5.34 per family, or $2.17 per adult male equivalent, for all families.

Stamps and stationery

Stamps and stationery constitute a small item of expense. The average amount expended during the year for this purpose was $4.55 per family, or $1.85 per adult male equivalent.

Traveling

The annual cost for traveling amounted to $38.90 per family, or $15.78 per adult male equivalent.

War relief

The year covered by this survey was one of very active work by war relief organizations, especially the Red Cross and the Tompkins County War Chest Association. The average amount contributed for war relief was $8.43 per family, or $3.42 per adult male equivalent.

Other expenses

Records of a few lesser expenses were also obtained, but they were not deemed sufficiently important to tabulate separately since they were not

complete for all families. These expenses averaged $1.50 per family, or 61 cents per adult male equivalent, for the year.

Farm and garden costs

Of the families visited, 13 lived on small farms in the vicinity of Groton, and 62 of the families living in Groton had gardens or kept some sort of livestock, usually poultry. The average annual expenses incurred in operating these farms and gardens and taking care of the livestock are summarized in table 13:

TABLE 13. AVERAGE ANNUAL EXPENSES FOR FARMS, GARDENS, OR LIVESTOCK

(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Average family income	$1,398.44	$1,904.00	$2,756.66	$2,013.43
Adult male equivalent	2.17	2.83	3.52	2.84
Average expenses for all households:				
Cash per household	$63.07	$58.56	$100.86	$73.32
Not cash per household	35.34	17.41	26.83	26.03
Total:				
Per household	$98.41	$75.97	$127.69	$99.35
Per adult male equivalent	$45.40	$26.80	$36.29	$34.98

The details of these farm and garden expenses are given later, in connection with the comparative study of the families living on farms, those living in town and cultivating gardens or keeping livestock, and those living in town and not having gardens or livestock. It suffices here to present the summary, indicating the division between "cash" and "not cash" expenses. The "not cash" expenses are comprised primarily of interest on the average investment in land, livestock, and farm and garden equipment. The average farm and garden expenses for the year

TABLE 14. AVERAGE ANNUAL VALUE OF HOME-PRODUCED FOOD FOR HOME CONSUMPTION

(92 families, Groton, New York)

Family income group	Number in group	Average family income	Adult male equivalent	Average value for all households	
				Per household	Per adult male equivalent
$1600 or less	29	$1,398.44	2.17	$ 68.66	$31.67
$1601 to $2000	34	1,904.00	2.83	75.12	26.50
Over $2000	29	2,756.66	3.52	114.28	32.48
All groups	92	2,013.43	2.84	85.42	30.08

were $99.35 per household, considering all households. The corresponding figure per adult male equivalent was $34.98.

The value of the food furnished the homes from their farms, gardens, and livestock is shown in table 14. The details concerning these products are given on pages 48 to 56.

The cost of this home-produced food for home consumption is included in the farm, garden, and livestock expenses (table 13). These products are, of course, a family receipt as well as a family expense, and are included under "not cash" in the statement of the total family income (table 5, page 12).

Summary of living costs

A summary of expenses for the 92 families is given by income groups in table 15. The average cost of living for the year studied amounted to $1659.30 per family, or $615.83 per adult male equivalent.

TABLE 15. SUMMARY OF EXPENSES

(92 families, Groton, New York)

Family income group	Number in group	Average family income	Average family expenses	
			Per family	Per adult male equivalent
$1600 or less	29	$1,398.44	$1,334.09	$614.95
$1601 to $2000	34	1,904.00	1,574.13	575.11
Over $2000	29	2,756.66	2,084.42	651.29
All groups	92	2,013.43	1,659.30	615.83

SUMMARY OF CASH RECEIPTS AND CASH EXPENSES

The cash receipts and cash expenses, per family and per adult male equivalent, are brought together in table 16. In each income group, the

TABLE 16. SUMMARY OF CASH RECEIPTS AND CASH EXPENSES, SHOWING THE AMOUNT AVAILABLE FOR SAVINGS AND THE AMOUNT ACTUALLY SAVED

(92 families, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	29	34	29	92
Cash income per family	$1,300 65	$1,800.06	$2,587.14	$1,890.75
Cash expenses per family	1,226.62	1,535.99	1,995.70	1,583.35
Amount available for savings	74.03	264.07	591.44	307.40
Amount actually saved:				
Per family	124.93	184.12	440.21	246.18
Per adult male equivalent	58.85	72.03	163.06	99.88
Per cent of income saved	9.6	10.2	17.0	13.0

difference between the receipts and the expenses gives the amount available for savings.

In order to check the accuracy of the estimates given, each family was questioned as to the amount of the year's income actually saved. Most persons seemed less inclined to give careful estimates of their savings than of any other item. In 77 of the 92 families, however, estimates as to savings were obtained. In the other 15 families, either the person questioned was unable to make a satisfactory estimate as to savings, or there was a definite refusal to answer the query. It is believed, therefore, that the averages given for actual savings are conservative.

The average amount available for savings for all families came to $307.40 per family. The amount actually saved was $246.18 per family. This would indicate that there was a discrepancy in the estimates for either the receipts or the expenses, of about $61 per family. Of course the error is more likely to be found in the expenses, for it is extremely difficult to cover all miscellaneous expense items in a work of this nature.

By a comparative study by income groups of the amount of money available for savings and the amount of money actually saved, it is seen that in only one income group was the available-for-savings figure lower than that for the amount actually saved. It would seem, therefore, that the expense items were conservatively estimated.

The percentage of the total cash income actually saved is also given in table 16. The percentage of the total cash income saved increased with the family income. The 92 families saved 13 per cent of the cash income received.

COMPARISON OF RESULTS OBTAINED IN GROTON WITH RESULTS OF OTHER COST-OF-LIVING STUDIES

There have been countless cost-of-living studies made by different individuals and organizations throughout the world from time to time. A brief description of some of the most noteworthy of these is given below, in chronological order.

Sir Frederick Eden (1797) used the survey method in 1796 and collected data from 73 English families. The reason which he gave for making the investigation was as follows:

> The difficulties, which the labouring classes experienced, from the high price of grain, and of provisions in general, as well as of cloathing and fuel, during the years 1794 and 1795, induced me, from motives both of benevolence and personal curiosity, to investigate their condition in various parts of the kingdom.

It should be kept in mind, therefore, that Eden was working with a selected class of people — the poorest families of working people that he could find in England. Furthermore, his purpose in collecting these workingmen's budgets was rather to furnish him with facts concerning the condition of the poor, in order that he might pursue more intelligently his fight for the correction of the English poor laws, than to make a scientific study of the budgets themselves.

The next important study of workingmen's budgets was that made by Dr. Ernst Engel (1895). His method was the family-account system. Intelligent workingmen's families were persuaded to keep an exact account of all sources of family income and all family expenditures for at least one year in a book provided for the purpose. Engel's principal work is based

on data collected for the year 1853 from an unknown number of Belgian workingmen's budgets. On the basis of these Belgian budgets and other observations, Engel constructed a table, of which the following is an adaptation:

Item of expenditure	Per cent of the expenditures of a					
	Laboring family		Middle-class family		Well-to-to family	
Subsistence	62.0	95.0	55.0	90.0	50.0	85.0
Clothing	16.0		18.0		18.0	
Lodging	12.0		12.0		12.0	
Firing and lighting	5.0		5.0		5.0	
Education, public worship, and the like	2.0	5.0	3.5	10.0	5.5	15.0
Legal protection	1.0		2.0		3.0	
Care of health	1.0		2.0		3.0	
Comfort, mental and bodily recreation	1.0		2.5		3.5	

From this table Engel propounded what is known as Engel's Law, the points of which, as given by Wright (1889 250), are:

One. That the greater the income, the smaller the relative percentage of outlay for subsistence.

Two. That the percentage of outlay for clothing is approximately the same, whatever the income.

Three. That the percentage of outlay for lodging, or rent, and for fuel and light, is invariably the same, whatever the income.

Four. That as the income increases in amount, the percentage of outlay for "sundries" becomes greater.

A much more intensive method for studying family living conditions and living costs is the monographic method of LePlay, which consists of a detailed study of a workingman's family by a tactful investigator who will live with or near the family to be studied until he is thoroughly acquainted with all the circumstances. This method requires a great amount of time and energy. It was introduced by LePlay in 1829, and between that date and the year 1888 LePlay and fifty-seven of his followers made monographic studies of one hundred families in fifteen different countries. The results of their research were published by Cheysson and Toqué (1890).

The most extensive cost-of living investigations conducted in any country thus far are those made by the United States Department of Labor by the survey method. The results of the survey made in 1890–91 are given in the seventh annual report of the United States Commissioner of Labor (1892). This work includes the data from 2562 workingmen's budgets. The latest work of the Department of Labor in cost-of-living studies was done in 1918–19. It embodies data from the budgets of 12,096 families in ninety-two cities or localities of forty-two States. These families were selected to meet the following requirements (U. S. Labor Department, 1919 a: 147):

1. The family must be that of a wage earner or salaried worker, but not of a person in business for himself. The families taken should represent proportionally the wage earners and the low or medium salaried families of the locality. 2. The family must have as a minimum a husband and wife and at least one child who is not a boarder or

lodger. 3. The family must have kept house in the locality for the entire year covered. 4. At least 75 per cent of the family income must come from the principal breadwinner or others who contribute all earnings to family fund. 5. All items of income or expenditure of members other than those living as lodgers must be obtainable. 6. The family may not have boarders nor over three lodgers either outsiders or children living as such. 7. The family must have no subrental other than furnished rooms for lodgers. 8. Slum or charity families or non-English speaking families who have been less than five years in the United States should not be taken.

The results of this investigation are summarized in the *Monthly Labor Review* for May June, July, and August, 1919 (U. S. Labor Department, 1919, a, b, c, and d).

No attempt is made herein to show a money comparison of either receipts or expenses of the families included in the above-mentioned investigations, with the Groton families. The long period of time over which those studies extended, and the wide geographical distribution of the families studied, would make a money comparison unsatisfactory. It will suffice to say that the workingman's family income has increased rapidly, not only in dollars and cents but also in the quantity of commodities which it will purchase, from the time of Sir Frederick Eden to the present. The only comparison which can be made profitably is that of the percentage of the total family income expended for the principal groups of living costs. All of the cost-of-living investigations described have been presented in such a manner that the following groups of living costs can be separated: food, rent, clothing, fuel and light, and all other purposes. A comparison of percentages of the total family expenditures for these different groups of living costs is presented in table 17.

O course no close comparison should be made of data covering such a long period of time and of such wide geographical distribution. The relative prices for the various groups of living expenses differ from year to year, and the prices for a particular group of commodities, such as food, vary widely in different countries at the same date. However, the first and fourth points in Engel's law (page 28 do seem to be established in

TABLE 17. COMPARISON OF PERCENTAGES OF THE TOTAL FAMILY EXPENDITURES FOR THE DIFFERENT GROUPS OF LIVING COSTS

Item of expenditure	Eden's 73 English budgets, 1796*	Engel's Belgian budgets, 1853†	LePlay Method, 100 budgets, 1829–1888‡	U. S. Dept. Labor, 2562 budgets, 1890–91§	U. S. Dept. Labor, 12,096 budgets, 1918–19‖	Groton, New York, 92 budgets, 1919
Food	73.0	66.9	56.8	41.1	38.2	41.7**
Rent	12.0	7.6	6.8	15.1	13.4¶	13.1
Clothing	7.0	14.9	16.5	15.3	16.6	11.3
Fuel and light	5.0	5.6	4.3	5.9	5.3¶	6.8
All other purposes	3.0	5.0	15.6	22.7	26.4	27.1

* Eden, Sir Frederick Morton. The state of the poor, vol. 3, 1797, Appendix 12 (calculated).
† Engel, Ernst. Die Lebenskosten belgischer Arbeiter-Familien früher und jetzt. Bul. de l'Institut Internat. de Statistique, vol. 9, 1895, p. 42.
‡ Cheysson, E., and Toqué, Alfred. Les budgets comparés des cent monographies de familles. Bul. de l'Institut Internat. de Statisque, vol. 5, 1890, p. 108–157 (calculated).
§ U. S. Commissioner of Labor, Seventh Annual Report, 1891, p. 864.
‖ U. S. Department of Labor, Monthly Labor Review, vol. 9, August, 1919, p. 118.
¶ Not including 295 families in which rent is combined with fuel and light.
** Including purchased food, and value of home-grown food for home consumption.

table 17. The proportion of the total family income necessary to defray the expenses for food decreased perceptibly in each investigation from the time of Sir Frederick Eden's work in 1796 to that of the United States Department of Labor in 1918 19. The percentage of the income spent for food was slightly higher for the Groton families than for the United States Department of Labor budgets. As Engel contended, this decreasing percentage of the income spent for food can be taken as an indication of material well-being; for the average income of workingmen's families has increased rapidly with each succeeding investigation here mentioned, since that made by Sir Frederick Eden. As to the truth of the fourth point in Engel's law, that the percentage of the outlay for "sundries" becomes greater with an increase in income, there can be no question. The increase is from 3 per cent for Eden's work to 27.1 per cent for the Groton families. The percentages given in the table for rent, clothing, and fuel and light, are not for purposes of comparison. The differences of customs and habits of life for the various countries and for the various periods probably more than offset any differences to be found in the figures for these three classes of costs.

The second and third propositions of Engel's law, that the percentage of outlay for clothing, rent, and heat and light is approximately the same whatever the income, are not so well established. Even in his own work with the Belgian budgets Engel found that the percentage of outlay for clothing increased from 10.9 in families with an income under 600 francs, to 17.1 in families with an income exceeding 2000 francs. In the same work there was a perceptible decrease in the percentage of outlay for fuel and light as the income increased. In the 1890–91 data of the United States Department of Labor, the tendency for the percentage of outlay for clothing to increase and that for fuel and light to decrease with an increase in the amily income was very noticeable. In the later work of the United States Department of Labor, the same tendencies prevailed for clothing expenses and for fuel and light costs as in the work of 1890–91; also, the percentage of outlay for rent decreased with an increase in income.

The average percentage of expenditure for food, clothing, upkeep or rent, fuel and light, and all other purposes, for 87 of the Groton families, is given by income groups in table 18. In the preparation of this table

TABLE 18. AVERAGE PERCENTAGE OF EXPENDITURE PER ANNUM FOR THE PRINCIPAL GROUPS OF ITEMS OF COST OF LIVING OF 87 FAMILIES IN GROTON, NEW YORK

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	34	32	21	87
Average family income	$1,429.21	$1,821.12	$2,740.76	$1,889.94
Average per cent of yearly expenditure per family for:				
Food*	41.7	42.7	40.5	41.7
Clothing	10.1	11.2	12.7	11.3
Rent or upkeep	14.7	12.1	12.5	13.1
Fuel and light	7.5	6.8	6.1	6.8
All other purposes	26.0	27.2	28.2	27.1

* Including purchased food, and value of home-grown food for home consumption.

it was thought desirable, in order to make a more adequate comparison with the results of other investigations, to eliminate the five families who boarded for the entire year. Of the 87 families remaining, 21 had taken into the home one or more boarders for varying periods during the year. It was deemed desirable to eliminate also, as far as possible, the influence of these boarders on the results. Therefore the income from boarders and roomers was omitted from the total family income, necessitating a reclassification of families by income groups. Thus, the expense for all food was decreased by the percentage which the adult male equivalent of boarders represented of the total adult male equivalent for the households. The total family expenses were reduced by the same amount. Of course the food cost is not the only cost involved in keeping boarders, but it is by far the most important one and the only one that could be deducted with any degree of accuracy.

There were too few of the Groton budgets to permit making a detailed study of the influence of increasing income on the ways in which the income was spent. The tendency was, however, for the percentage of outlay for food, rent or upkeep, and fuel and light, to decrease, and that for clothing and all other purposes to increase, with increasing family income.

The data for 518 families in New York City are given in table 19. The New York figures are for approximately the year preceding those for Groton. The average family income for the New York families was $1556.33, and that for the 87 Groton families approximately one year later was $1889.94, omitting receipts from boarders and roomers. The average weekly earnings of factory employees in New York City increased about 33 per cent from December of 1917 to December of 1918 (U. S. Labor

TABLE 19. AVERAGE PERCENTAGE OF EXPENDITURE PER ANNUM FOR THE PRINCIPAL GROUPS OF ITEMS OF COST OF LIVING OF 518 FAMILIES IN NEW YORK CITY, BY INCOME GROUPS*

Income group	Number of families	Average yearly per cent of expenditures per family for				
		Food	Clothing	Rent	Fuel and light	All other purposes
Under $900	16	45.7	10.2	20.0†	5.7†	18.0
$900–$1199.99	107	46.0	13.8	16.0‡	5.2‡	18.5
$1200–$1499.99	151	43.5	14.9	15.4§	4.4§	20.7
$1500–$1799.99	115	40.9	17.5	14.1‖	4.3‖	22.2
$1800–$2099.99	66	41.1	17.3	12.3¶	3.8¶	23.2
$2100–$2499.99	38	38.5	19.3	12.0‡	3.8‡	26.2
$2500 and over	25	38.8	21.0	12.3**	3.1**	24.8
All groups	518	42.0	16.6	14.3††	4.3††	22.0

* United States Bureau of Labor Statistics, Monthly Labor Review, vol. 8, May, 1919, p. 158.
† Not including 1 family in which rent is combined with fuel and light.
‡ Not including 11 families in which rent is combined with fuel and light.
§ Not including 34 families in which rent is combined with fuel and light.
‖ Not including 25 families in which rent is combined with fuel and light.
¶ Not including 23 families in which rent is combined with fuel and light.
** Not including 5 families in which rent is combined with fuel and light.
†† Not including 110 families in which rent is combined with fuel and light.

Dept., 1920b:110). In all probability, therefore, the average income for the New York families equaled or exceeded that for the Groton families in 1919. On the other hand, from the data available (U. S. Labor Dept., 1920a:84, 86) it would seem that the cost of living in New York City did not increase so rapidly as did wages during the period mentioned above, although it would seem that the difference between the rise of wages and the rise of living costs would not be great enough during the year under consideration to make any appreciable changes in the results for New York given in table 19. A direct comparison of the New York figures with those from Groton seems logical.

The general tendency for the percentage of the total family income expended for food, rent, and fuel and light to decrease, and that for clothing and all other purposes to increase, with an increase in the income, seems to be the same for the New York and the Groton families. When the averages for all families are compared, the principal differences seem to be in the percentage expended for clothing and all other purposes. The Groton families spent approximately 5 per cent less of their incomes for clothing than did the New York families.

Perhaps the best measure for comparing the New York families with the Groton families as to general well-being is the amount saved per family. The average surplus per family for the New York families was $30.67 (U. S. Labor Dept., 1919a:158). The average amount actually saved per family in Groton was $246.18 (table 16, page 26). Even with a 33-per-cent increase in earnings for the New York families, they could hardly hope to save as much as did the families in the small town.

COMPARISON OF LIVING CONDITIONS AND LIVING COSTS OF PERSONS EMPLOYED IN A FACTORY, AND LIVING ON FARMS, LIVING IN TOWN AND CULTIVATING GARDENS OR KEEPING LIVESTOCK, AND LIVING IN TOWN WITH NO GARDENS NOR LIVESTOCK

Before beginning a comparison of living costs of factory employees under various conditions, it is thought advantageous to give an idea as to the farm experience of the husbands and wives in the households studied. Data for this are presented in table 20:

TABLE 20. FARM EXPERIENCE OF THE HEADS OF 92 HOUSEHOLDS, GROTON, NEW YORK

Period spend on farms	Husbands		Wives	
	Number	Per cent	Number	Per cent
Born on farms	39	42.9	32	34.8
Moved to farms before 21 years old	6	6.6	10	10.9
Left farms at 21 years of age or older	27	29.7	21	22.8
Always lived on farms	1	1.1	4	4.3
On farms at time of study	12*	13.2	13*	14.1
Lived on farms at some time	56	61.5	49	53.3
Never lived on farms	35	38.5	43	46.7

* One husband boarded in town, while his wife lived on the farm.

Approximately 43 per cent of the husbands and 35 per cent of the wives were born on farms. In addition, about 7 per cent of the husbands and 11 per cent of the wives moved to farms with their parents before they were twenty-one years of age. Hence, approximately 50 per cent of the husbands and 46 per cent of the wives were farm-reared. Still others among the parents, however, had lived on farms at some period during their lives. A total of 61.5 per cent of the husbands and 53.3 per cent of the wives had at some time lived on a farm.

SIZE OF IMMEDIATE FAMILY

The immediate families (husband, wife, and children) averaged slightly larger for the families living on farms. The average adult male equivalent per immediate family at home was 2.84 for all families. The corresponding figure for the families living on farms was 3.22. (Table 21.)

TABLE 21. COMPARISON OF AVERAGE SIZE OF IMMEDIATE FAMILY, BY HOME CLASSIFICATIONS

(92 families, Groton, New York)

Home classification	Number in class	Size of immediate family			Adult male equivalent at home
		At home	Not at home	Total	
Farm	13	3.9	0.3	4.2	3.22
Garden or livestock	62	3.3	0.3	3.6	2.79
No garden nor livestock	17	2.8	0.5	3.3	2.75
All families	92	3.3	0.3	3.6	2.84

It is seen in table 21 that there were 13 families included in the farm classification. Two of these families, however, had nothing to do with the operation of the farms on which they lived. They merely occupied the houses and had garden plots. One of these families kept a flock of chickens and two cows. The other family had no livestock. These two families are included in the farm classification in the comparisons of the expenses for upkeep or rent, light, heat, water, and telephone. In all other comparisons, however, they are included in the garden or livestock classification.

FAMILY INCOME

A comparison of the average family income from all sources for the families living on farms, living in town and cultivating gardens or keeping livestock, and living in town with no gardens nor livestock, is shown in table 22. The average family income from all sources was considerably the highest for the families living on farms. However, this comparison is made of gross income, and it should be noted that almost half of the receipts of the farm families came from the wives and from farm produce. In table 5 (page 12) it was shown that approximately one-half of the amount

TABLE 22. COMPARISON OF AVERAGE FAMILY INCOME FROM ALL SOURCES, BY HOME CLASSIFICATIONS

(92 families, Groton, New York)

Home classification	Farm	Garden or livestock	No garden nor livestock	All families
Number in class	11	64	17	92
Adult male equivalent	2.87	2.48	2.13	2.46
Average receipts from:				
Husband	$1,307.91	$1,571.53	$1,474.41	$1,522.07
Wife	547.18	211.23	351.76	277.37
Sons	91.18	31.02	48.59	41.46
Daughters	2.27	3.48	.....	2.70
Other members of family	.....	13.05	.....	9.08
Farms, gardens, or livestock	718.27	107.62	.....	160.75
Average family income from all sources:				
Per family	$2,666.81	$1,937.93	$1,874.76	$2,013.43
Per adult male equivalent	928.91	780.34	879.44	816.87

contributed by the wives was pay from roomers and boarders, a very small proportion of which is net income. After the costs, other than family labor, of producing the farm products are deducted, only $247.45 remains as pay for family labor. The net income of the farm families is undoubtedly smaller than that of the other two groups.

FAMILY EXPENSES

The average annual costs of upkeep or rent, light, heat, water, and telephone service, for the families living on farms, living in town and cultivating gardens or keeping livestock, and living in town with no gardens nor livestock, are compared in table 23.

Upkeep or rent

A comparison of both owned and rented homes of the families living on farms, living in town and cultivating gardens or keeping livestock, and living in town with no gardens nor livestock, is given in table 24. Of the 13 farm homes, 12 were owned by the occupants. Of the 74 homes in town, 32 were owned and 42 were rented. All of the families who occupied their own homes cultivated gardens or kept some livestock. Of the owned homes, those on the farms were slightly the larger, but the average value of buildings was about 31 per cent less than the average value of the buildings for the town homes. This difference in value of buildings was due partly to the fact that the town homes were of better construction, but the principal reason for the difference was location. Of the owned farm homes, 75 per cent were not equipped with bathrooms or inside toilets, as compared with about 6 per cent of the owned town homes not having these improvements.

Since there was but one rented farm home, the only fair comparison to be made is between the other two home classifications. The 30 rented

TABLE 23. COMPARISON OF AVERAGE ANNUAL COST OF UPKEEP OR RENT, LIGHT, HEAT, WATER, AND TELEPHONE, BY HOME CLASSIFICATIONS

(92 families, Groton, New York)

Home classification	Farm	Garden or livestock	No garden nor livestock	All families
Number in class	13	62	17	92
Adult male equivalent	3.72	2.77	2.26	2.81
Upkeep or rent:				
Per family	$180.31	$216.37	$158.88	$200.65
Per adult male equivalent	48.48	77.99	70.39	71.35
Light:				
Per family	15.85	17.74	11.41	16.30
Per adult male equivalent	4.26	6.40	5.06	5.80
Heat:				
Per family	88.38	90.92	56.47	84.19
Per adult male equivalent	23.76	32.77	25.02	29.94
Water:				
Per family	4.46	6.18	3.35	5.41
Per adult male equivalent	1.20	2.23	1.49	1.92
Telephone:				
Per family	8.23	2.69	3.00	3.53
Per adult male equivalent	2.21	0.97	1.33	1.26

homes having gardens or livestock averaged about one room larger than the 12 homes with no gardens nor livestock. Nearly three-fourths of the rented homes having gardens or livestock were equipped with bathrooms and inside toilets. Only one-half of the homes with no gardens nor livestock had bathrooms and inside toilets. The above-mentioned points explain to a large extent the difference in value of buildings between these two classes of homes.

TABLE 24. COMPARISON OF THE COST OF UPKEEP OR RENT, BY HOME CLASSIFICATIONS

(87 families, Groton, New York)

Home classification	Number in class	Average value of buildings	Average number of rooms	Per cent having		
				Neither bath nor toilet	Bath and toilet	Toilet only
Owners						
Farm	12	$2,111.67	8.2	75.0	25.0	0
Garden or livestock	32	3,047.44	7.8	6.2	87.5	6.3
No garden nor livestock	.....	.....	.....	.....	.....	.....
Renters						
Farm	1	$1,300.00	8.0	100.0	0	0
Garden or livestock	30	2,253.50	6.2	13.3	73.4	13.3
No garden nor livestock	12	1,612.50	5.1	33.3	50.0	16.7

The upkeep or rent cost was lowest on the farms, where it averaged $48.48 per adult male equivalent for the year (table 23). t was highest for the group of families in town who were cult vating gardens or keeping some kind of livestock. The figure per adult male equivalent for these families was $77.99.

Light

A comparison of light cost by home classifications shows the smallest cost per family for those families having no gardens nor livestock. The cost per adult male equivalent, however, was lowest for the farm families. (Table 23.)

Electric lights were found in 76 per cent of the town homes, whereas all of the farm homes used kerosene for lighting with the exception of one home which had acetylene lights.

Heat

Furnaces were used in 67 per cent of the town homes and in 23 per cent of the farm homes. The verage cost of all fuel for heating and cooking purposes per adult male equivalent was lowest for the farm families (table 23).

Water

Running water came from the town water-mains in 81.5 per cent of the town homes. Only 46 per cent of the farm homes had water piped into the house.

A comparison of the costs for water shows that the cost per family was lowest for the families living in town with no gardens nor livestock. Due to the larger size of the families on the farms, however, the cost per adult male equivalent was lowest for the farm families. (Table 23.)

Telephone

Telephones were found in a larger proportion of the farm homes than of the town homes page 20). The cost per family for telephone service for all farm families averaged $8.23. The average cost for the 92 families was $3.53. (Table 23.)

TABLE 25. COMPARISON OF AVERAGE ANNUAL COST OF BOARD AND PURCHASED FOOD, BY HOME CLASSIFICATIONS

(92 households, Groton, New York)

Home classification	Number in class	Adult male equivalent	Average cost of board		Average cost of purchased food	
			Per household	Per adult male equivalent	Per household	Per adult male equivalent
Farm	11	4.37	$ 16.27	$ 3.73	$818.18	$187.38
Garden or livestock	64	2.75	20.36	7.41	652.27	237.55
No garden nor livestock	17	2.21	205.18	92.96	409.06	185.34
All families	92	2.84	54.02	19.02	627.16	220.83

Board

The cost of meals taken out of the home was very low for the farm families, averaging $16.27 for all farm households (table 25). The expense for board was, of course, highest in the families with no gardens nor livestock, since the five families who boarded all the year were included in this group.

Purchased food

The amount spent for purchased food was highest per household for the farm families (table 25). If the board and purchased-food costs were combined, however, the cost per adult male equivalent would be lowest for the farm families and highest for the families living in town with no gardens nor livestock.

Miscellaneous expenses

A comparison of the miscellaneous expenses of the families living on farms with those of the families living in town is shown in table 26:

TABLE 26. COMPARISON OF AVERAGE ANNUAL MISCELLANEOUS EXPENSES OF FAMILIES LIVING ON FARMS, AND OF THOSE LIVING IN TOWN
(92 families, Groton, New York)

Home classification	Farm	Town	All families
Number in class	11	81	92
Adult male equivalent	2.87	2.41	2.46
Automobiles:			
Per family	$ 31.18	$ 42.52	$ 41.16
Per adult male equivalent	10.86	17.64	16.70
Books, papers, and magazines:			
Per family	12.36	13.63	13.48
Per adult male equivalent	4.31	5.66	5.47
Car fare:			
Per family	1.73	0.64	0.77
Per adult male equivalent	0.60	0.27	0.31
Charity:			
Per family	4.55	8.12	7.70
Per adult male equivalent	1.58	3.37	3.12
Church:			
Per family	11.64	22.06	20.82
Per adult male equivalent	4.05	9.16	8.45
Clothing:			
Per family	152.73	179.27	176.10
Per adult male equivalent	53.19	74.40	71.45
Doctors, dentists, and medicine:			
Per family	42.55	74.63	70.79
Per adult male equivalent	14.82	30.97	28.72
Domestic help:			
Per family	26.82	4.79	7.42
Per adult male equivalent	9.34	1.99	3.01
Education:			
Per family	66.27	8.94	15.79
Per adult male equivalent	23.08	3.71	6.41
Entertainment:			
Per family	11.09	29.98	27.72
Per adult male equivalent	3.86	12.44	11.25
Furniture:			
Per family	66.55	44.53	47.16
Per adult male equivalent	23.18	18.48	19.13

TABLE 26 (*concluded*)

Home classification	Farm	Town	All families
Number in class	11	81	92
Adult male equivalent	2.87	2.41	2.46
Furniture insurance:			
Per family	$ 1.00	$ 1.64	$ 1.57
Per adult male equivalent	0.35	0.68	0.64
House supplies:			
Per family	12.09	19.44	18.57
Per adult male equivalent	4.21	8.07	7.53
Laundry:			
Per family	11.36	23.54	22.09
Per adult male equivalent	3.96	9.77	8.96
Life insurance:			
Per family	18.55	41.48	38.83
Per adult male equivalent	6.46	17.26	15.75
Organization dues:			
Per family	2.09	5.78	5.34
Per adult male equivalent	0.73	2.40	2.17
Stamps and stationery:			
Per family	3.00	4.77	4.55
Per adult male equivalent	1.04	1.98	1.85
Traveling:			
Per family	18.55	41.67	38.90
Per adult male equivalent	6.46	17.29	15.78
War relief:			
Per family	7.27	8.59	8.43
Per adult male equivalent	2.53	3.57	3.42
All other expenses:			
Per family	3.64	1.21	1.50
Per adult male equivalent	1.27	0.50	0.61

The percentage of the farm families owning automobiles was 27, as compared with 23 per cent of the town families. The farm families owned the less expensive cars, however, making the cost per family lower for that group.

The farm families spent less than did the families living in town for books, papers, and magazines, and for charitable and church purposes. Although the farm families were larger than the town families, the clothing cost per family was considerably less for the former, due probably to the fact that persons living on farms, have more opportunity to wear out their old clothes. The charges for doctor's services were also less for the farm families, in spite of the fact that for them the charge per visit was higher. The farm families spent much less for entertainment. A considerable proportion of their recreation was derived from performing productive farm work. The farm families spent less than did the town families for house supplies, for furniture insurance, for laundry, for organization dues, for stamps and stationery, and for traveling. The average farm family carried less life insurance than did the average family living in town. Car fare, which was primarily the charge for transportation on the Corona Company's motor busses, was higher for the farm families, of course. More money was spent by the farm families for educational purposes. The only son in college from the 92 families was from one of the farms. The cost of furni-

ture for the year was higher in the farm families, and they also paid more for domestic help than did the families living in town. However, one of the farm families had an average of fourteen boarders for the year, and $20.09 of the average of $26.82 per family was pay for domestic help in this one family. All families were about equally patriotic, as is indicated by the expenditures for war relief.

Farm and garden costs

The average expense for operating the 11 farms was $470.82 per farm, or $107.83 per adult male equivalent. The average garden and livestock expenses for the 64 families in town having these expenses were $61.89 per family, or $22.54 per adult male equivalent. These figures include all farm, garden, and livestock costs with the exception of the labor performed by members of the family.

Summary of expenses

All the expenses are combined, in table 27, for comparison by home classifications. The average expenses per family were largest in the farm families and smallest in the town families with no gardens nor livestock. When the averages are considered on the adult-male-equivalent basis, however, the order is exactly reversed.

TABLE 27. COMPARISON OF AVERAGE ANNUAL EXPENSES, BY HOME CLASSIFICATIONS

(92 families, Groton, New York)

Home classification	Number in class	Average family expense	
		Per family	Per adult male equivalent
Farm	11	$2,107.52	$554.73
Garden or livestock	64	1,637.86	617.15
No garden nor livestock	17	1,454.41	666.36
All families	92	1,659.30	615.83

SUMMARY OF CASH RECEIPTS AND CASH EXPENSES

A comparison of the annual cash receipts and cash expenses for the families living on farms, living in town and cultivating gardens or keeping livestock, and living in town with no gardens nor livestock, is presented in table 28. The amount of cash actually saved was lowest for the farm families and highest for the town families with no gardens nor livestock. However, 91 per cent of the farm families owned their homes, in which they had an average investment of $2950 per family when all farm families are considered. On the other hand, none of the families living in town with no gardens nor livestock owned the homes in which they lived. Of the families living in town and cultivating gardens or keeping livestock, 53 per cent owned their homes. This gives an average investment in homes of approximately $1896 for the 64 families in that group.

TABLE 28. COMPARISON OF ANNUAL CASH RECEIPTS AND CASH EXPENSES, BY HOME CLASSIFICATIONS, SHOWING THE AMOUNT AVAILABLE FOR SAVINGS AND THE AMOUNT ACTUALLY SAVED

(92 families, Groton, New York)

Home classification	Number in class	Cash income per family	Cash expenses per family	Available for savings per family	Actually saved		Per cent of cash income saved
					Per family	Per adult male equivalent	
Farm	11	$2,265.55	$1,904.00	$361.55	$221.82	$ 77.26	9.8
Garden or livestock	64	1,845.48	1,579.78	265.70	232.28	93.53	12.6
No garden nor livestock	17	1,818.59	1,389.41	429.18	314.29	147.43	17.3
All families	92	1,890.75	1,583.35	307.40	246.18	99.88	13.0

DETAILS OF FARMS, GARDENS, AND LIVESTOCK

Up to this point, only summaries of receipts and expenses for farms, gardens, and livestock have been given The details of these receipts and expenses follow.

LIVESTOCK

The average quantity and value of the different classes of livestock produced for home use are presented in table 29:

TABLE 29. AVERAGE ANNUAL QUANTITY AND VALUE OF LIVESTOCK PRODUCED FOR HOME USE, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of livestock	Average per family producing	Average for all families	Average per family producing	Average for all families
Veal:				
Pounds	250.0	22.7	.....	.....
Value	$45.00	$4.09	.....	.....
Pork:				
Pounds	193.3	105.5	219.0	17.1
Value	$47.67	$26.00	$54.60	$4.27
Poultry:				
Number	17.1	14.0	18.7	4.4
Value	$20.11	$16.45	$23.67	$5.55
Rabbits:				
Pounds	18.0	1.6	.....	.....
Value	$3.00	$0.27	.....	.....
Average value	$51.50	$46.81	$39.25	$9.82

Hogs and poultry were the principal classes of livestock raised for home consumption. The farm families producing pork furnished 193.3 pounds per family for home use, valued at $47.67. A few hogs were raised in town also for home use, the average being 219 pounds, valued at $54.60, for the few town families who produced pork. An average of 17.1 chickens and ducks, valued at $20.11, were used in the homes of the farm families who raised poultry. The town families who raised poultry used an average of 18.7 chickens, worth $23.67. One farm family butchered a veal calf for home use, while another used a few Belgian hares.

The average value of all meat produced for home use by the farm families was $51.50 per family producing, or $46.81 per family for the 11 farm families. The value of the meat produced for home consumption by the town families averaged $39.25 per family producing, or $9.82 for all families.

The average receipts from sale of livestock for the farm families was $167 per family selling, or $136.63 for all farm families (table 30). A small amount of livestock was sold by a few of the town families.

TABLE 30. AVERAGE ANNUAL RECEIPTS FROM SALE OF LIVESTOCK, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of livestock	Average per family selling	Average for all families	Average per family selling	Average for all families
Dairy cows	$212.00	$ 77.09	.....	.....
Heifer calves	42.50	15.45	.....	.....
Veal calves	46.00	8.36	$ 8.00	$0.12
Horses	150.00	13.64	.....	.....
Brood sows	70.00	6.36	.....	.....
Other hogs	60.50	11.00	75.00	1.17
Poultry	13.00	4.73	19.89	2.80
Average	$167.00	$136.63	$29.11	$4.09

Details of the expenses for livestock purchased are given in table 31. The average expense for the purchase of livestock was $101.60 for the farm families purchasing, and $17.57 for the families in town who bought any livestock.

LIVESTOCK PRODUCTS

The livestock products for home use consisted of whole milk, butter, and eggs. The average quantity and value of these products for the families producing them, and for all families in each home classification, are given in table 32. The average value of all livestock products per farm family producing them for home use was $145.10, or $131.91 for all farm families. The average value of all livestock products used in the town homes producing them was $48.55, or $15.17 for the 64 families. Only 2 of the town families kept cows, and only 25 raised poultry.

TABLE 31. AVERAGE ANNUAL EXPENSE FOR LIVESTOCK PURCHASED, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of livestock	Average per family purchasing	Average for all families	Average per family purchasing	Average for all families
Dairy cows	$131.20	$59.64	$100.00	$1.56
Heifer calves	21.50	3.91	.....	.....
Veal calves	4.50	0.82	.....	.....
Horses	125.00	11.36	.....	.....
Pigs	13.33	10.91	10.80	0.84
Chickens	6.67	3.64	9.20	1.44
Baby chicks	20.00	1.82	.....	.....
Rabbits	3.00	0.27	.....	.....
Average	$101.60	$92.37	$17.57	$3.84

TABLE 32. AVERAGE ANNUAL QUANTITY AND VALUE OF LIVESTOCK PRODUCTS PRODUCED FOR HOME USE, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of product	Average per family producing	Average for all families	Average per family producing	Average for all families
Whole milk:				
Quarts	682.4	558.4	730.0	22.8
Value	$70.78	$57.91	$85.50	$2.67
Butter:				
Pounds	68.0	30.9	104.0	1.6
Value	$36.60	$16.64	$57.00	$0.89
Eggs:				
Dozen	126.3	114.8	70.7	22.1
Value	$63.10	$57.36	$37.15	$11.61
Average value	$145.10	$131.91	$48.55	$15.17

The receipts from the sale of livestock products averaged $156.37 per family for all farm families, and $14.10 per family for the 64 town families (table 33). The receipts from this source per family selling these products averaged $286.67 for the farm families and $75.17 for the town families.

In addition to the livestock products used in the homes and those sold, whole milk, skimmilk, and buttermilk valued at $120 was fed to livestock. This amount is not included here as either a receipt or an expense.

TABLE 33. AVERAGE ANNUAL QUANTITY AND VALUE OF LIVESTOCK PRODUCTS SOLD, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of product	Average per family selling products	Average for all families	Average per family selling products	Average for all families
Whole milk:				
Quarts	3,407.4	1,548.8	2,966.0	92.7
Value	$304.80	$138.55	$327.00	$10.22
Butter:				
Pounds	30.0	2.7	.....	.....
Value	$18.00	$1.64	.....	.....
Eggs:				
Dozen	112.7	30.7	52.1	7.3
Value	$58.00	$15.82	$27.00	$3.80
Hides:				
Number	4.0	0.4	1.0	0.02
Value	$4.00	$0.36	$5.00	$0.08
Average value	$286.67	$156.37	$75.17	$14.10

CROPS

The value of the crops sold and those produced for home consumption, for the families producing them and for all families in the two home classifications, is shown in table 34. Very few crops were raised for sale by these families. The average receipts from the sale of crops on the 11 farms were $31.28 per farm, or $49.14 per farm family selling any crops. The average receipts from the sale of garden produce for the town families selling were $13 08 per family. Vegetables formed the most important class of crops raised, and most of these were used by the families raising them.

The farm families fed to their livestock crops totaling $1748 in value, or an average of $158.91 per farm. This amount is not here considered in either the receipts or the expenses. The town families fed no home-raised crops of value to their livestock.

MISCELLANEOUS RECEIPTS

On 7 of the farms the value of land, equipment, livestock, and feed and supplies, was greater at the end of the year covered by the survey than at the beginning of the year. This increase in capital amounted to $1057 and was considered as a receipt. One of the farm families received $10 from a neighbor for pasturing a cow; another made two gallons of maple sirup and ten pounds of maple sugar for home use, which together were valued at $6.

There was an increase of $695 invested in land, garden tools, and livestock, in 23 of the 64 town homes having gardens or livestock. One of

these families sold a town lot and some garden tools for $202; three families rented their barns as garages, from which they received $78; and one other family made five gallons of maple sirup for home use, valued at $6.

TABLE 34. AVERAGE ANNUAL VALUE OF CROPS SOLD AND PRODUCED FOR HOME USE, BY HOME CLASSIFICATIONS

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Kind of crop	Average per family producing	Average for all families	Average per family producing	Average for all families
Corn:				
Sold	$ 3.00	$ 0.27	.....	.....
Used at home	6.00	0.55	.....	.....
Buckwheat:				
Used at home	7.00	0.64	.....	.....
Oats:				
Sold	50.00	4.55	$25.00	$ 0.39
Wheat:				
Sold	.....	.....	25.00	0.39
Hay:				
Sold	56.50	10.27	.....	.....
Fruits:				
Sold	31.00	5.64	7.00	0.22
Used at home	16.89	13.82	11.38	2.31
Vegetables:				
Sold	23.20	10.55	13.29	1.45
Used at home	102.73	102.73	47.32	44.36
Total:				
Sold	49.14	31.28	13.08	2.45
Used at home	117.74	117.74	48.18	46.67

MISCELLANEOUS EXPENSES

Any decrease in the capital invested in land, equipment, livestock, and feed and supplies, was considered as an expense. The decrease in capital for 4 of the farm families amounted to $345, and for 10 of the town families it was $492.

Interest was charged at 6 per cent on the average investment for the year in land, equipment, livestock, and feed and supplies. This amounted to $802 for all the 11 farm families, or $72.91 per family. For the 46 town families reporting any investment in land, garden tools, or livestock, the total interest charge was $846, or $18.39 per family.

Details of all other farm, garden, or livestock expenses are given by home classifications in table 35. The largest two items of expense for the farm families were for purchased feed for livestock, and day labor, in the order named. All of these families purchased some feed, the average being $164.55 per family. The day-labor expense covers both man and horse labor. Approximately one-fourth of the labor expense was for horse hire. Seven of the farm families did not own a horse, and the other four

families owned but one each. Two of these four horses were used for driving to the factory and were not available for much farm labor. Horse labor seemed to be one of the most serious problems on these small farms.

TABLE 35. AVERAGE ANNUAL MISCELLANEOUS FARM, GARDEN, OR LIVESTOCK EXPENSES

(75 families, Groton, New York)

Home classification	Farm		Garden or livestock	
Number in class	11		64	
Items of expense	Average per family having expense	Average for all families	Average per family having expense	Average for all families
Day labor	$ 36.78	$ 36.78	.....	.....
Board of day labor	2.00	0.18	.....	.....
Barrels and baskets	1.50	0.27	.....	.....
Breeding fees	2.00	0.18	.....	.....
Cash rent of land	12.50	2.27	$ 4.50	$ 0.23
Feed	164.55	164.55	57.46	23.34
Feed grinding	2.00	0.18	.....	.....
Fencing	8.17	4.45	15.33	1.44
Fertilizer	13.00	7.09	1.83	0.17
Lime	.....	.....	1.50	0.05
Manure	.....	.....	3.50	0.93
Horse shoeing	16.80	7.64	13.00	0.20
Equipment purchased	34.00	9.27	5.25	0.82
Equipment repaired	20.00	1.82	15.00	0.23
Threshing	4.00	0.36	2.00	0.03
Milk hauling	8.50	1.55	.....	.....
Milk utensils	2.00	0.18	3.00	0.05
Seed, plants, and trees	25.27	25.27	4.23	3.90
Spray materials	1.21	0.77	1.19	0.30
Veterinary	2.25	0.82	.....	.....
Plowing, fitting, and planting gardens	.....	.....	5.53	4.32
Hatching eggs	3.50	0.64	3.80	0.30
Use of buildings (interest, taxes, repairs, fire insurance)	21.80	9.91	48.00	0.75
Gardens purchased	.....	.....	5.00	0.08

On most farms there was not enough work to justify the expense of keeping a horse, and it was almost impossible to hire teams when they were needed.

The largest garden or livestock expenses for the town families, when all these families are considered, were for purchased feed for livestock, man and horse labor for plowing, fitting, and planting gardens, and garden seeds and plants, in the order named.

AVERAGE SIZE OF FARMS

The average size of the 11 farms included in the study was 15.1 acres (table 36), ranging from 2 acres to 48 acres. The purposes for which the land was used also are shown in the same table.

TABLE 36. AVERAGE SIZE OF FARMS, AND LAND UTILIZATION

Number of farms	Acres in					Total
	Crops	Woods not pastured	Woods pastured	Other permanent pasture	Farmstead, roads, and waste	
11	7.5	0.3	0.3	5.9	1.1	15.1

AVERAGE SIZE OF GARDENS

The average size of gardens cultivated by the 11 farm families and the 62 town families is shown in table 37. The farm gardens averaged nearly two-fifths of an acre in size. The largest farm garden covered one acre, and the smallest only 875 square feet. The town gardens averaged

TABLE 37. AVERAGE SIZE OF GARDENS ON FARMS AND IN TOWN

Home classification	Number in class	Average size (square feet)
Farm	11	16,101.4
Town	62	8,305.9
All homes	73	9,480.6

about one-half as large as those on the farms. One of the town families, however, had $1\frac{1}{4}$ acres in garden, which was the largest garden found either in town or on a farm. The smallest town garden covered only 400 square feet. The average size for the 73 gardens was approximately 9480 square feet, or between one-fourth and one-fifth of an acre.

There were 34 kinds of vegetables, small fruits, and herbs grown in the 73 gardens surveyed (table 38). Tomatoes were grown in all but five of the 73 gardens, and sweet corn in all but seven. The other vegetables,

TABLE 38. KINDS OF VEGETABLES, SMALL FRUITS, AND HERBS GROWN BY 73 FAMILIES, GROTON, NEW YORK

Crop	Number of families raising
Tomatoes	68
Sweet corn	66
Beets	64
String beans	63
Cucumbers	62
Radishes	62
Lettuce	61
Green peas	50
Potatoes	48
Onions	42

TABLE 38 (*concluded*)

Crop	Number of families raising
Cabbage	32
Carrots	31
Squash	29
Rhubarb	24
Pumpkins	21
Dry beans	20
Turnips	19
Parsnips	18
Peppers	16
Cauliflower	13
Chard	9
Celery	8
Strawberries	8
Lima beans	6
Raspberries	6
Salsify	6
Asparagus	5
Spinach	5
Blackberries	2
Kohl-rabi	2
Pop corn	2
Dill	1
Parsley	1
Poppies	1

small fruits, and herbs are listed in the table in the order of the number of families growing them. Some crops, such as potatoes, were not found more frequently because of lack of space in small gardens. Crops which yield no returns during the year in which they are planted were found in a surprisingly small number of gardens. Only about one-third of the gardens contained rhubarb, eight gardens had strawberry beds, six had raspberries, five had asparagus, and two had blackberries. Only one of the families in rented homes was raising asparagus and rhubarb, while three others had strawberry beds in their gardens. Evidently the probability of moving is too great among the renters to start a crop from which they may not receive any returns. One family was raising dill to be used in pickling cucumbers, and poppies, the seeds of which were ground and used for seasoning bread.

PAY FOR FAMILY LABOR FROM FARMS, GARDENS, AND LIVESTOCK

The average pay for family labor from farms, and from gardens or livestock in town, is presented in table 39. The hours of labor necessary to obtain this income, and the net income per hour employed, also are given.

The average net income per family in payment for family labor on the 11 farms was $247.45. The corresponding figure for the gardeners and keepers of livestock in town was $45.73 per family. About 53 per cent of the farm work was performed by the husbands, 35 per cent by the sons, and the remaining 12 per cent by the wives. The average net income per hour employed on the farms was 24 cents. Three-fourths of the work

TABLE 39. AVERAGE PAY FOR FAMILY LABOR PER HOUR EMPLOYED ON FARMS, IN GARDENS, OR WITH LIVESTOCK

(75 families, Groton, New York)

Home classification	Farm	Garden or livestock	All families
Number in class	11	64	75
Total farm, garden, or livestock:			
Receipts per family	$718.27	$107.62	$197.19
Expenses per family	$470.82	$61.69	$121.87
Pay for family labor per family	$247.45	$45.73	$75.32
Hours employed on farms, in gardens, or with livestock:			
Husband	547.3	56.3	128.5
Wife	128.2	5.0	23.1
Sons	369.1	0.9	54.9
Daughters	.....	0.5	0.4
Other members of family	.....	12.8	10.9
Total hours employed	1,044.6	75.5	217.8
Net income per hour employed	$0.24	$0.60	$0.35

in gardens and with livestock in town was performed by the husbands, 7 per cent by the wives, less than 2 per cent by the sons and daughters, and the remainder by the fathers of either the husbands or the wives. The work performed in gardens and with livestock in town was much more efficient than that on the farms, the net income per hour employed being 60 cents. The average net income for all work done by members of the family on farms, in gardens, and with livestock, was 35 cents per hour.

There are many advantages of living on a farm that cannot be measured by statistics, such as the providing of safe and wholesome surroundings for the rearing of children, and the satisfaction of obtaining a large proportion of the food supply from its original source. On the other hand, farm life usually means more work for the housewife. Even if she performs the housework only, which is seldom the case, it is unusual for her to have the modern conveniences found in the majority of town homes. Running water, bathrooms, electric lights, and electrical appliances, cost much more in the farm homes and consequently are not often found there.

DETAILS OF ALL FOOD USED

Food is the most important single cost in the family budget. Up to this point, only summaries of these costs have been given. The details of quantities, cost or value, and percentage of cost or value, of the different kinds of food follow, a distinction being made between the amounts purchased and the amounts produced at home.

The five families that boarded for the entire year have been eliminated in this study. Also, the members of the ten families who boarded for varying periods have been eliminated for the period during which they boarded.

QUANTITIES OF FOOD

As far as it was practicable, the quantities of the different kinds of food used were obtained. These figures are reasonably complete for meat and meat products, poultry, eggs, and dairy products, and are given in table 40:

TABLE 40. QUANTITIES OF FOOD PURCHASED AND PRODUCED FOR HOME USE PER ANNUM

(87 households, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Meat and meat products:				
Beef (pounds):				
Purchased	135.3	209.1	214.2	188.7
Produced	.....	.....	.....	.....
Total:				
Per household	135.3	209.1	214.2	188.7
Per adult male equivalent	61.4	76.2	61.7	67.0
Veal (pounds):				
Purchased	12.4	23.7	48.5	28.3
Produced	.....	.....	8.9	2.9
Total:				
Per household	12.4	23.7	57.4	31.2
Per adult male equivalent	5.6	8.6	16.6	11.1
Pork (pounds):				
Purchased	86.8	110.3	148.2	115.5
Produced	27.1	25.6	25.2	25.9
Total:				
Per household	113.9	135.9	173.4	141.4
Per adult male equivalent	51.7	49.5	50.0	50.2
Mutton (pounds):				
Purchased	3.3	10.6	23.5	12.6
Produced	.....	.....	.....	.....
Total:				
Per household	3.3	10.6	23.5	12.6
Per adult male equivalent	1.5	3.9	6.8	4.5
Lard and lard substitutes (pounds):				
Purchased	49.2	53 5	89.1	63.7
Produced	.....	.....	.....	.....
Total:				
Per household	49.2	53.5	89.1	63.7
Per adult male equivalent	13.1	19.5	25.7	22.6
Fish (pounds):				
Purchased	13.1	25.5	45.1	28.1
Produced	.....	.....	.....	.....
Total:				
Per household	1 .1	25.5	45.1	28.1
Per adult male equivalent	6.0	9.3	13.0	10.0
Rabbits (pounds):				
Purchased	.....	.....	.....	.....
Produced	.....	0.5	.....	0.2
Total:				
Per household	.....	0.5	.....	0.2
Per adult male equivalent	.....	0.2	.....	0.1

TABLE 40 (*concluded*)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Meat and meat products (*continued*):				
Total meat and meat products (pounds):				
Purchased	300.1	432.7	568.6	436.9
Produced	27.1	26.1	34.1	29.0
Total:				
Per household	327.2	458.8	602.7	465.9
Per adult male equivalent	139.3	167.2	173.8	165.5
Poultry (number):				
Purchased	2.6	5.3	6.3	4.8
Produced	4.1	2.6	8.6	5.0
Total:				
Per household	6.7	7.9	14.9	9.8
Per adult male equivalent	3.0	2.9	4.3	3.5
Eggs (dozen):				
Purchased	48.4	60.8	57.5	56.0
Produced	18.6	28.1	45.2	30.8
Total:				
Per household	67.0	88.9	102.7	86.8
Per adult male equivalent	30.4	32.4	29.6	30.8
Dairy products:				
Milk (quarts):				
Purchased	354.7	430.9	416.7	403.5
Produced	70.2	53.4	143.4	87.4
Total:				
Per household	424.9	484.3	560.1	490.9
Per adult male equivalent	192.9	176.5	161.4	174.3
Cream (quarts):				
Purchased	0.5	1.8	5.5	2.6
Produced	.....	.....	.....	.....
Total:				
Per household	0.5	1.8	5.5	2.6
Per adult male equivalent	0.2	0.7	1.6	0.9
Butter (pounds):				
Purchased	70.7	112.2	132.3	106.3
Produced	5.0	4.7	5.6	5.1
Total:				
Per household	75.7	116.9	137.9	111.4
Per adult male equivalent	34.4	42.6	39.7	39.5
Cheese (pounds):				
Purchased	23.7	29.5	40.0	31.2
Produced	.....	.....	.....	.....
Total:				
Per household	23.7	29.5	40.0	31.2
Per adult male equivalent	10.8	10.8	11.5	11.1
Cottage cheese (pounds):				
Purchased	10.5	4.7	1.1	5.3
Produced	.....	.....	.....	.....
Total:				
Per household	10.5	4.7	1.1	5.3
Per adult male equivalent	4.8	1.7	0.3	1.9

Meat and meat products

The only meats produced for home use were veal, pork, and a few rabbits. The total of the purchased and produced meat and meat products for all households averaged 67 pounds of beef, 50.2 pounds of pork, 11.1 pounds of veal, 10 pounds of fish, 4.5 pounds of mutton, and 22.6 pounds of lard and lard substitutes, per adult male equivalent. The total of all meat and meat products averaged 465.9 pounds per household for all households, or 165.5 pounds per adult male equivalent. The total quantity of meat and meat products per household increased fairly rapidly with the increase in family income, but the number of persons per household also increased in the same manner. The quantity of all meat and meat products per adult male equivalent increased from 139.3 pounds in the lowest income group to 173.8 pounds in the highest income group.

Poultry

Approximately one-half of the poultry used in these households was raised at home. The average number of poultry used in all households was 9.8, or 3.5 per adult male equivalent. There was very little variation in the number of poultry used per adult male equivalent as the family income increased.

Eggs

An average of 86.8 dozen eggs were used per household, or 30.8 dozen per adult male equivalent. In other words, the average was about one egg per day per adult male equivalent. There was no appreciable change in the number of eggs used per adult male equivalent as the family income increased.

Dairy products

Dairy products include milk, cream, butter, cheese, and cottage cheese. A considerable amount of milk was produced and some butter was made for home use. These households used an average of 174.3 quarts of milk (less than a pint a day), 39.5 pounds of butter, and 11.1 pounds of cheese, per adult male equivalent. The quantity of milk per adult male equivalent decreased with an increase in the family income, indicating that milk might have been used to a limited extent as a substitute for meat in the lower income groups.

COST OR VALUE OF FOOD

The cost of the different kinds and classes of food purchased, and the value of the kinds of food produced, are given in table 41. The percentages of the total cost or value of food represented by the different kinds and classes of food are shown in table 42.

Meat and meat products

The cost of meat and meat products constituted 21.8 per cent of the total food cost for all households (table 42). Beef was used to a greater extent than any other kind of meat. Pork was second choice. About 4 per cent of the meat consumed was produced at home. The average cost of meat and meat products for all households was $164.82, or $58.51 per adult male equivalent (table 41).

TABLE 41. AVERAGE ANNUAL COST OR VALUE OF ALL FOOD PURCHASED AND PRODUCED FOR HOME USE

(87 households, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	Total
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Meat and meat products:				
Beef:				
Purchased	$48.92	$76.33	$78.32	$68.78
Produced	.....	.....	.....	.....
Total:				
Per household	48.92	76.33	78.32	68.78
Per adult male equivalent	22.21	27.82	22.56	24.42
Cost per pound	0.36	0.37	0.37	0.36
Veal:				
Purchased	4.42	8.58	18.14	10.41
Produced	.....	.....	1.61	0.52
Total:				
Per household	4.42	8.58	19.75	10.95
Per adult male equivalent	2.01	3.12	5.69	3.88
Cost or value per pound	0.36	0.36	0.34	0.35
Pork:				
Purchased	33.19	42.21	57.07	44.30
Produced	6.77	6.33	6.21	6.43
Total:				
Per household	39.96	48.54	63.28	50.73
Per adult male equivalent	18.14	17.69	18.23	18.01
Cost or value per pound	0.35	0.36	0.36	0.36
Mutton:				
Purchased	1.50	3.70	8.18	4.48
Produced	.....	.....	.....	.....
Total:				
Per household	1.50	3.70	8.18	4.48
Per adult male equivalent	0.68	1.35	2.36	1.59
Cost per pound	0.45	0.35	0.35	0.36
Lard and lard substitutes:				
Purchased	17.35	18.97	30.25	22.11
Produced	.....	.....	.....	.....
Total:				
Per household	17.35	18.97	30.25	22.11
Per adult male equivalent	7.87	6.91	8.71	7.85
Cost per pound	0.35	0.35	0.34	0.35
Fish:				
Purchased	3.54	7.27	12.25	7.76
Produced	.....	.....	.....	.....
Total:				
Per household	3.54	7.27	12.25	7.76
Per adult male equivalent	1.61	2.65	3.53	2.75
Cost per pound	0.27	0.29	0.27	0.28
Rabbits:				
Purchased	.....	.....	.....	.....
Produced	.....	0.09	.....	0.03
Total:				
Per household	.....	0.09	.....	0.03
Per adult male equivalent	.....	0.03	.....	0.01
Value per pound	.....	0.17	.....	0.17

TABLE 41 (*continued*)

Family income group	$1600 or less	$1601 to $2000	Over $2000	Total
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Total meat and meat products:				
Purchased	$108.92	$157.06	$204.21	$157.84
Produced	6.77	6.42	7.82	6.98
Total:				
Per household	115.69	163.48	212.03	164.82
Per adult male equivalent	52.52	59.57	61.08	58.51
Cost or value per pound	0.35	0.36	0.37	0.35
Poultry:				
Purchased	3.96	7.39	7.50	6.40
Produced	5.23	3.39	10.29	6.16
Total:				
Per household	9.19	10.78	17.79	12.56
Per adult male equivalent	4.17	3.93	5.12	4.46
Cost or value per fowl	1.37	1.36	1.19	1.28
Eggs:				
Purchased	26.23	33.55	30.68	30.44
Produced	9.27	14.97	22.82	15.79
Total:				
Per household	35.50	48.52	53.50	46.23
Per adult male equivalent	16.12	17.68	15.41	16.41
Cost or value per dozen	0.53	0.55	0.52	0.53
Dairy products:				
Milk:				
Purchased	37.85	49.79	50.68	46.51
Produced	7.15	5.33	15.93	9.29
Total:				
Per household	45.00	55 12	66.61	55.80
Per adult male equivalent	20.43	20.09	19.19	19.81
Cost or value per quart	0.11	0.11	0.12	0.11
Cream:				
Purchased	0.27	0.97	2.79	1.34
Produced	.....	.....	.....	.....
Total:				
Per household	0.27	0.97	2.79	1.34
Per adult male equivalent	0.12	0.35	0.80	0.48
Cost per quart	0.54	0.53	0.51	0.52
Butter:				
Purchased	41.12	65.97	75.89	61.74
Produced	2.77	2.70	2.82	2.76
Total:				
Per household	43.89	68.67	78.71	64.50
Per adult male equivalent	19 92	25.02	22.68	22.90
Cost or value per pound	0.58	0.59	0.57	0.58
Cheese:				
Purchased	8.58	10.64	14.36	11.22
Produced	.....	.....	.....	.....
Total:				
Per household	8.58	10.64	14.36	11.22
Per adult male equivalent	3.89	3.88	4.14	3.98
Cost per pound	0.36	0.36	0.36	0.36
Cottage cheese:				
Purchased	1.88	0.82	0.21	0.94
Produced	.....	.....	.....	.....

TABLE 41 (*concluded*)

Family income group	$1600 or less	$1601 to 2000	Over $2000	Total
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Dairy products (*continued*):				
Cottage cheese (*continued*):				
Total:				
Per household	$ 1.88	$ 0.82	$ 0.21	$ 0.94
Per adult male equivalent	0.86	0.30	0.06	0.33
Cost per pound	0.18	0.17	0.19	0.18
Total dairy products:				
Purchased	89.70	128.19	143.93	121.75
Produced	9.92	8.03	18.75	12.05
Total:				
Per household	99.62	136.22	162.68	133.80
Per adult male equivalent	45.22	49.64	46.87	47.50
Honey:				
Purchased	1.54	1.06	0.64	1.07
Produced	.....	.....	.....	.....
Total:				
Per household	1.54	1.06	0.64	1.07
Per adult male equivalent	0.70	0.39	0.19	0.38
Maple sirup and maple sugar:				
Purchased	2.12	1.24	1.75	1.67
Produced	.....	0.18	0.21	0.14
Total:				
Per household	2.12	1.42	1.96	1.81
Per adult male equivalent	0.96	0.52	0.57	0.64
Fruit:				
Purchased	20.46	23.64	35.71	26.57
Produced	3.04	2.06	5.46	3.45
Total:				
Per household	23.50	25.70	41.17	30.02
Per adult male equivalent	10.67	9.36	11.86	10.66
Vegetables:				
Purchased	14.96	22.21	27.68	21.80
Produced	42.35	42.33	53.00	45.77
Total:				
Per household	57.31	64.54	80.68	67.57
Per adult male equivalent	26.02	23.52	23.24	23.99
Other groceries:				
Purchased	234.92	249.64	395.21	292.09
Produced	.....	.....	.....	.....
Total:				
Per household	234.92	249.64	395.21	292.09
Per adult male equivalent	106.65	90.97	113.86	103.71
Ice:				
Purchased	1.77	4.03	4.68	3.56
Produced	.....	.....	.....	.....
Total:				
Per household	1.77	4.03	4.68	3.56
Per adult male equivalent	0.80	1.47	1.35	1.27
Total food:				
Purchased	504.58	628.01	851.99	663.19
Produced	76.58	77.38	118.35	90.34
Total:				
Per household	581.16	705.39	970.34	753.53
Per adult male equivalent	263.83	257.05	279.55	267.53

TABLE 42. PERCENTAGE OF COST OR VALUE OF ALL FOOD REPRESENTED BY EACH KIND AND CLASS OF FOOD

(87 households, Groton, New York)

Family income group	$1600 or less	$1601 to $2000	Over $2000	All groups
Number in group	26	33	28	87
Average family income	$1,397.88	$1,911.12	$2,777.54	$2,036.59
Adult male equivalent	2.20	2.74	3.47	2.82
Meat and meat products:				
Beef	8.4	10.8	8.1	9.1
Veal	0.8	1.2	2.0	1.5
Pork	6.9	6.9	6.5	6.7
Mutton	0.3	0.5	0.8	0.6
Lard and lard substitutes	3.0	2.7	3.1	2.9
Fish	0.6	1.0	1.3	1.0
Rabbits	0.0	..... *	0.0	..... *
Total meat and meat products	20.0	23.1	21.8	21.8
Poultry	1.6	1.5	1.8	1.7
Eggs	6.1	6.9	5.5	6.1
Dairy products:				
Milk	7.7	7.8	6.9	7.4
Cream	..... *	0.1	0.3	0.2
Butter	7.6	9.7	8.1	8.6
Cheese	1.5	1.5	1.5	1.5
Cottage cheese	0.3	0.1	..... *	0.1
Total dairy products	17.1	19.2	16.8	17.8
Honey	0.3	0.2	0.1	0.1
Maple sirup and maple sugar	0.4	0.2	0.2	0.2
Fruit	4.0	3.6	4.2	4.0
Vegetables	9.9	9.2	8.3	9.0
Other groceries	40.3	35.5	40.8	38.8
Ice	0.3	0.6	0.5	0.5
Total	100.0	100.0	100.0	100.0
Food derived from:				
Animal products	45.1	50.9	46.0	47.5
All other sources	54.9	49.1	54.0	52.5

* Less than 0.1 per cent.

Poultry

The cost of poultry represented 1.7 per cent of the total food cost (table 42). Approximately one-half of the poultry used was produced at home. The average cost or value of all poultry used was $1.28 per fowl (table 41).

Eggs

The cost of eggs made up 6.1 per cent of the total food cost in the 87 households (table 42). Slightly more than one-third of the eggs used were produced at home. The average cost or value of eggs for all households was $46.23, or $16.41 per adult male equivalent (table 41); the average cost per dozen was 53 cents.

Dairy products

The total value of all dairy products, consisting of milk, cream, butter, cheese, and cottage cheese, averaged $133.80 per household, or $47.50

per adult male equivalent (table 41). The cost of dairy products constituted 17.8 per cent of the total food cost (table 42), with butter making up about one-half of the cost of these products. About one-sixth of the milk used was produced at home.

Fruit

An average of 4 per cent of the food expenditures in the 87 households was for fruit (table 42). The average cost per household for fruit was $30.02 (table 41). Approximately 11 per cent of the fruit used was raised at home.

Vegetables

Vegetables formed the principal class of home-produced food. Approximately two-thirds of the vegetables used came from the home gardens. Their cost constituted 9 per cent of the total food cost of all families (table 42). There was a slight decrease in the percentages of the total food cost represented by vegetables as the family income increased.

Other groceries

The average cost of all other groceries was $292.09 per household, or $103.71 per adult male equivalent (table 41).

Ice

Ice was included in the budget as a food cost. It was used in only 28 of the 87 homes An average of 18.9 hundredweight of ice was used in the 28 homes, or 7.6 hundredweight per adult male equivalent. This ice cost $11.07 per household using ice, or $4.46 per adult male equivalent.

All foods

The average cost or value of all food was $753.53 per household, or $267.53 per adult male equivalent (table 41). There was no appreciable change in the cost per adult male equivalent as the family income increased. About 12 per cent of the total value of food used in these households was produced at home.

The proportion of all food derived from animal products was 47.5 per cent for all households (table 42). There is no appreciable change in the percentage of the total food cost represented by animal products when the data are studied by income groups. In Engel's (1895: 38–42) work with the Belgian budgets, the proportion of all food derived from animal products for all families was about 23 per cent, and the range was from approximately 16 per cent for the families in the lowest income group to about 27 per cent for those in the highest income group. These percentages merely indicate that animal food was a luxury in Belgium even at that time (1853). Undoubtedly, if data were available for the food budgets of workingmen in that country at the present time, the percentage spent for animal food would be still smaller.

COMPARISON OF ALL FOOD BY HOME CLASSIFICATIONS

The average cost or value of all food used in the households is compared according to the different home classifications in table 43. About 27 per cent of the food used in the farm homes, and about 10 per cent of the food used in the town homes having gardens or livestock, was produced

TABLE 43. COMPARISON OF THE AVERAGE ANNUAL COST OR VALUE OF ALL FOOD USED, BY HOME CLASSIFICATIONS
(87 families, Groton, New York)

Home classification	Farm	Garden or livestock	No garden nor livestock
Number in class	11	64	12
Adult male equivalent	4.35	2.67	1.89
Average family income	$2,666.81	$1,937.93	$1,985.00
Cost of purchased food per household	$ 818.18	$652.27	$579.50
Value of home-produced food per household	297.00	71.75	.....
Total value of food used:			
Per household	1,115.18	724.02	579.50
Per adult male equivalent	256.36	271.06	306.34

at home. The average cost of all food per household was highest for the farm homes and lowest for the town homes with no gardens nor livestock, but the farm families were considerably larger. The average cost per adult male equivalent exactly reverses this order.

RELATION OF THE NUMBER OF ADULT MALE EQUIVALENTS IN A HOUSEHOLD TO THE TOTAL FOOD COST

A study was made of the relation of the number of adult male equivalents in a household to the total cost of food, the data being arranged in the order of the number of adult male equivalents per household beginning with the lowest. The results of this study are given in table 44:

TABLE 44. RELATION OF THE NUMBER OF ADULT MALE EQUIVALENTS IN A HOUSEHOLD TO THE TOTAL FOOD COST
(84 households, Groton, New York)

Adult-male-equivalent group	Number in group	Average adult male equivalent	Average family income	Cost of purchased food per household	Value of home-produced food per household	Total value of food used	
						Per household	Per adult male equivalent
1–1.99	19	1.50	$1,899.05	$ 404.11	$ 39.32	$ 443.43	$294.79
2–2.99	37	2.41	1,806.97	608.00	62.41	670.41	278.27
3–3.99	19	3.25	2,261.32	688.05	156.53	844.58	259.95
4–4.99	5	4.43	2,253.20	933.00	112.00	1,045.00	236.00
5–5.99	4	5.28	2,225.50	1,032.25	128.75	1,161.00	219.78
All groups	84	2.65	1,977.06	619.54	84.58	704.12	265.56

Although the total food cost per household increased about 162 per cent from households with the smallest number of adult male equivalents to those with the largest number, the cost per adult male equivalent decreased approximately 25 per cent.

The decreasing cost of food per capita in larger families in a number of States and in other countries has been reported by the United States Labor Commissioner (1891:664).

THE SMALL TOWN AS A FACTORY SITE

Some of the advantages and disadvantages of the small town as a factory site have already been brought out by the statistics in the preceding pages. Others, which cannot be measured in figures, have been formulated from the opinions of several factory employers and employees. A few of these advantages follow.

The opportunities for the employees to own their homes are good (page 15). In fact, it has become almost imperative that the employees in the Groton factories should own their homes, since houses for rent are very scarce.

Living expenses are lower in the small town, which provides a better opportunity to save money (page 32).

The small town furnishes ample opportunity for cultivating garden plots. In case some of the employees are interested in something more than garden plots in town, there are usually opportunities to obtain small farms near at hand at reasonable prices. The work performed in gardens or on small farms is usually well compensated for by the products received (page 47).

Most of the employees of a factory in a small town are likely to be natives of the town or of the surrounding community (page 6). The factory should be benefited by this more permanent and uniform labor force.

Social and recreational work can be better organized and much more effectively conducted in the small-town factory than in the city factory, since there is very little competition from other sources in the small town. If there is good team work among the employees during their leisure hours, the same spirit usually prevails during the working hours.

The principal disadvantages which this study has brought out are as follows:

With a rapidly expanding business, it is sometimes difficult to get sufficient labor. This was evidenced in Groton by the fact that the Corona Typewriter Company maintained four motor busses to transport employees from distant points (page 6). Even if the cost of operation of these busses was covered by the fares charged the employees, the responsibility of watching this additional detail rested with the factory management.

A number of the employees mentioned as a decided disadvantage the possibility of the factory's shutting down, with no other work available in the town. This would mean a particular hardship to the employees who owned their homes. Not only would the value of the homes greatly depreciate in a town with no work available, but there would be difficulty in disposing of the property at any figure.

There seemed to be an opinion that the transportation problem is more serious in the small town than in the city. Shipments of raw materials to the factory are slower, and the difficulties in getting cars for shipping the finished product are greater, in the small town. It was also thought that freight rates are more advantageous to the city factory than to the small-town factory.

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Home and Business Record of a Family

No.....

Prepared by Department of Farm Management, New York State College of Agriculture at Cornell University, Ithaca, N. Y.

1.—County.....State.....Record for year ending..... .....19....

Name.....Street.....No.....P. O.....

2. Members of Household

Member	Months at home during year	Nationality	Sex	Age	Years lived on farms	SCHOOLS				
						Highest attended	Years	Grade if in school	Distance	Conveyance
Husband			X					X	X	X
Wife			X					X	X	X
Children		X								
		X								
		X								
		X								
		X								
		X								
Hired help		X			X	X	X	X	X	X
		X			X	X	X	X	X	X
		X			X	X	X	X	X	X
Other					X	X	X	X	X	X
					X	X	X	X	X	X
					X	X	X	X	X	X
Self-supporting										

Number of sons not at home during the year.....

Number of daughters not at home during the year.....

3. Occupation of Head of Household

When time is entered for work done on own farm or in own garden, write "farm" or "garden" in occupation column

Firm	Occupation	Days employed	Cash wages	Bonuses or overtime	WAGES NOT CASH		Total
					Item	Dollars	
			$	$		$	$
Other earnings							
Total	X		$	$	X	$	$

Miles to work, state road.....dirt road.....Total.....Conveyance.....

4. Occupation of Other Members of Household

Do not enter here the self-supporting members of household. When time is entered for work on own farm or in own garden, write "farm" or "garden" in occupation column

Member	Occupation	Conveyance	Days employed	Rate of pay	TOTAL		Board farm help
					Cash	Other	
				$	$		X
							X
							X
							X
							X
							X
							X
Received from roomers and boarders, members of family							
Not members of family							
				Total	$		

5. The Home

Value of buildings	At beginning of year	At end of year	Item	House	Other buildings	TOTAL	
						Cash	Other
House	$	$	Taxes, all kinds	$	$	$	X
Other (list kind)			Fire insurance				X
			Repairs, cash				X
			Interest on mortgage				X
			Interest on average value,				
			less mortgage, @—%			X	
Average value of house $			Depreciation			X	
Average value of other buildings $			Rent paid				X
Amount of mortgage $ @ %			Total				
What would house rent for per year, if owned by occupant $			Deduct appreciation, if any			X	
			Cost of upkeep or rent				
Number of rooms			Per cent farm use	%	%	%	%
Bathroom and toilet			Dollars farm use				
Year last painted			Dollars other use				

General appearance; good, medium, poor

6. Home Conveniences

Item	Kind	Amount	Price	Yearly cost or value	FARM USE		TOTAL LESS FARM USE	
					Per cent	Value	Cash	Other
Light	Electric	X	$	$		$	$	$ X
	Gas	X						X
	Kerosene	gal.						X
Heat	Coal	tons						X
furnace	Wood	cds.						X
stove	Kerosene	gal.						X
	Gas	X	X					X
Water	City	X	X					
	Pump inside	X	X					
	Pump outside	X	X					
	Cistern	X	X					
	Spring	X	X					
	Open well	X	X					
Telephone	X	X	X					X
Auto								
gasoline	X	gal.				Going to work	X	X
repairs	X	X	X			Other business	X	X
insurance	X	X	X			Pleasure	X	X
license	X	X	X		X	X	X	X
depreciation	X	X	X		X	X	X	X
other	X	X	X		X	X	X	X
Other conveniences								
(list kind)								

Total yearly cost of conveniences $ $

7. Purchased Food

Kind	Amount	Price	Value
Meat products	X	X	X
beef	lbs.	$	$
veal	lbs.		
pork	lbs.		
mutton	lbs.		
lard	lbs.		
fish	lbs.		
Dairy products	X	X	X
milk	qts.		
cream	qts.		
butter	lbs.		
cheese	lbs.		
cottage cheese	lbs.		
Poultry and eggs	X	X	X
poultry	no.		
eggs	doz.		
Fruit	X		
Vegetables	X		
Honey	lbs.		
Maple syrup	gal.		
Other groceries	X		
Ice	cwt.		
Total	X	X	$

Have you decreased the amount of meat used because of high cost

.....%; milk.....%; eggs.....%

8. Miscellaneous Expenses

KIND	FARM USE %	FARM USE Value	TOTAL Less farm use
Books, papers, and magazines		$	$
Car fare			
Charity			
Church			
Clothing			
Doctors, dentists, and medicine			
Educational			
Entertainment			
Furniture			
House supplies			
Insurance, furniture			
life			
Laundry			
Organization dues			
Hired help (domestic) days			
Stamps and stationery			
Traveling			
War relief			
Washing, cleaning, etc., days			
Other expenses (list kind)			
Total	X	X	$

9. Livestock Products

Product	FOR HOME USE				SOLD OR TO BE SOLD	
	Human food		Animal food			
	Amount	Value	Amount	Value	Amount	Value
Whole milk	qts.	$	qts.	$	qts.	$
Cream	qts.		X	X	qts.	
Skimmilk	qts.		qts.		qts.	
Buttermilk	qts.		qts.		qts.	
Cheese	lbs.		X	X	lbs.	
Wool	X	X	X	X	lbs.	
Eggs	doz.		X	X	doz.	
Hatching eggs	X	X	X	X		
Day-old chicks	X	X	X	X		
Breeding fees, kind	X	X	X	X		
Hides, kind	X	X	X	X		
Honey	lbs.		X	X	lbs.	
Total	X	$	X	$	X	$

10. Miscellaneous Receipts

Enter any money received for time or labor of hired help off the farm and for other things noted below

RECEIVED FOR	CASH		HOME USE	
	Amount	Value	Amount	Value
Man labor off farm	days	$	X	$ X
Team work off farm	days		X	X
Machine work or use of machinery	days		X	X
Jury, assessor, etc.	days		X	X
Cash rent for land	acres		X	X
Stock pastured, kind			X	X
Boarding stock, kind			X	X
Rent of buildings, kind			X	X
Maple syrup, sugar	gal. lbs.		gal. lbs.	
Lumber, posts, wood, etc.				
Insurance, kind			X	X
Any other receipt				
Total miscellaneous receipts	X	$	X	$

11. Crops

CROP	CROPS GROWN			DISPOSAL OF CROP					
				For home use				Sold or to be sold	
				Human food		Animal food			
	Acres	Yield per acre	Total crop	Amount	Value	Amount	Value	Amount	Value
Corn for grain (shelled)		bu.			$		$		$
Corn for silage		tons		X	X				
Fodder corn (green weight)		tons		X	X				
Sweet corn		tons							
Potatoes		bu.							
Field beans		bu.							
Cabbage		tons							
Tobacco		lbs.				X	X		
Root crops, kind		bu.							
Buckwheat		bu.							
Oats and barley		bu.		X	X				
Oats and peas		bu.		X	X				
Oats		bu.							
Barley		bu.							
Winter wheat		bu.							
Rye		bu.							
Straw	X	X	X	X	X				
Alfalfa (No. cuttings.....)		tons		X	X				
Hay, clover, timothy (No. cut.....)		tons		X	X				
Oat hay		tons		X	X				
Apples bearing		bbls.							
Cider apples, driers, and other seconds	X	cwt.							
Peaches bearing		bu.							
Cherries bearing		lbs.				X	X		
Pears bearing		bu.							
Fruit not of bearing age		X	X	X	X	X	X	X	X
Berries		qts.				X	X		
Tomatoes		tons							
String beans		cwt.				X	X		
Green peas		cwt.				X	X		
Any other crops									

11. Crops (*concluded*)

CROP	CROPS GROWN			DISPOSAL OF CROP					
	Acres	Yield per acre	Total crop	For home use				Sold or to be sold	
				Human food		Animal food			
				Amount	Value	Amount	Value	Amount	Value
Other garden	X	X	X	X	$	X	$	X	$
Total acreage of crops		Total Values			$	X	$	X	$
Acres double-cropped									
Difference = acres used for crops									
Woods not pastured									
Woods pastured									
Other permanent pasture									
Other land pastured thruout season									
Farmstead, roads, fence rows									
Other land									
Total acres [1]									

NOTE: 1.–Should equal total acres as given in part 12.

12. Land Area

ITEM	ACRES	SQUARE FEET
Owned		
Cash-rented		
Share-rented		
Total area		
Garden		

13. Livestock

KIND	BREED	BEGINNING OF YEAR			END OF YEAR			SALES			PURCHASES			NO. died during year	HOME USE	
		No.	Value per head	Total value	No.	Value per head	Total value	No.	Price per head	Total received	No.	Price per head	Total paid		No.	Value
Dairy cows { grade			$	$		$	$		$	$		$	$			$
Dairy cows { purebred																
Dairy heifers { grade																
Dairy heifers { purebred																
Veal calves																
Bulls { grade																
Bulls { purebred																
Beef cattle																
Horses (No. mares ----)															X	X
Mules															X	X
Stallions															X	X
Colts															X	X
Ewes { breeding																
Ewes { yearling																
Bucks																
Lambs, weaned																
Fattening sheep																
Brood sows																
Boars																
Other hogs																
Pigs, weaned																
Chickens																
Ducks																
Geese																
Turkeys																
Bees															X	X
Totals	X	X	X	$	X	X	$	X	X	$	X	X	$	X	X	$

14. Farm Expenses[2]

	CASH	OTHER
Year help (months.....)	$	$
Value of board furnished year help (months.....)		
Month help (months.....)		
Value of board furnished month help (months.....)		
Day help (days.....)		
Value of board furnished day help (days.....)		
Advertising		
Baling		
Barrels, baskets, bags, egg cases		
Breeding fees		
Buildings, new		
Building repairs, roofing, paint, etc.		
Cash rent for.....acres		
Cash rent for pasturage		
Commissions, storage		
Freight, express, etc.		
Drains		
Hay, silage, stalks, straw		
Feeds, grain bought for horses, cows, poultry, hogs, and sheep, including salt, beef-scrap, grit, etc.		
Feed grinding		
Fence, wire, posts, staples, etc.		
Fertilizer		
Lime		
Manure		
Horseshoeing		
Insurance		
Lumber sawing		
Machinery, wagons, harness, etc.		
Machinery repairs, tires, plow points, sections, etc.		
Machines hired, as drill, harvester, etc.		
Silo filling, corn shredding or husking		
Threshing		
Coal, oil, gasoline, etc., for farm use		
Twine		

NOTE: 2.—All farm expenses listed elsewhere in this blank should be brought under this heading.

15. Capital

ITEM	Value at beginning of year	Value at end of year
Land (without buildings)		
Machinery, wagons, harness, etc.		
Feed, seed, and supplies		
Livestock (part 13)		
Totals		

Average capital $.....

16. Summary

	PART	CASH	OTHER	TOTAL
THE FARM		$	$	$
RECEIPTS				
Increase in capital	15	X		
Crops for human food	11	X		
Crops sold	11		X	
Livestock for human food	13	X		
Livestock sold	13		X	
Livestock products for human food	9	X		
Livestock products sold	9		X	
Miscellaneous, home use	10	X		
Miscellaneous, cash	10		X	
Total farm receipts				
EXPENSES				
Decrease in capital	15	X		
Livestock purchased	13		X	
Farm expenses	14			
Total farm expenses				
Income from capital and family labor				
Interest on average capital @.....%		X		
Family farm income				
Total earnings of head of household off the farm	3			
Total earnings of other members of household off the farm	4			
Total family income				
Rent or upkeep	5			
Home conveniences	6			
Purchased food	7		X	
Miscellaneous expenses	8		X	
Total family expenses				
Available for savings		$	X	X

14. Farm Expenses (*concluded*)

	CASH	OTHER
Farm share of upkeep and operation of auto	$	$
Ice		
Milk hauling		
Milk bottles, cans, strainers, etc.		
Cow tester, acid, fees, etc.		
Registration fees		
Seed, grass		
Other seeds, plants, trees		
Spray materials		
Stamps and stationery for farm use		
Telephone and toll for farm use		
Taxes including school tax, farm share		
Veterinary, medicines, disinfectant		
Any other farm expenses		
Total	$	$

17. How much was saved during the year $.....